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"THE PROFESSION WHICH I HAVE EMBRACED REQUIRES A KNOWLEDGE OF EVERYTHING"

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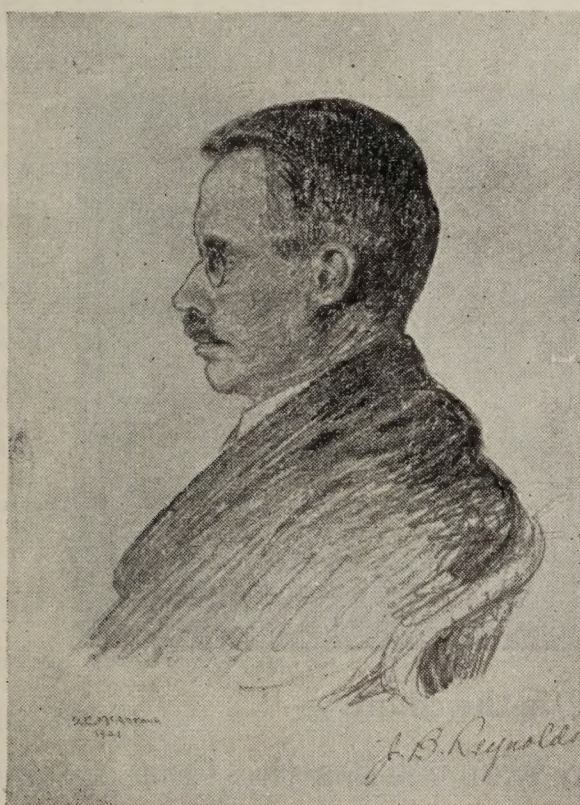
Rural Life and the Rural School.

By PRESIDENT J. B. REYNOLDS, M. A.

A NUMBER of summer schools for teachers are held in July at various points in Ontario. Those in attendance are mostly rural school teachers, and the object of the courses is to make the rural school a more effective instrument in country life.

This effect can be brought about not so much by the subject-matter of teaching as by the spirit and atmos-

phere of the school and the attitude towards rural things. The teaching of agriculture is not the main issue. The amount of agriculture that can be directly taught in the public schools is comparatively little, and for two reasons: not much time can be given directly to agriculture after due allowance is made for the foundation subjects of reading, writing, arithmetic, grammar, history, geography, drawing and literature; and no means have yet been found to give the public school teachers sufficient knowledge of agriculture to enable the subject to be taught effectively as a separate subject. For a teacher to be capable of covering the subject as a whole even in the most superficial way is not to be thought of after one month of training. Certain teachers may develop certain hobbies, such as nature study or the school garden; one may be an amateur botanist and interest the school in collecting weeds and grasses; one may make collections of insects; another may lead the school in making a survey of the crops grown in the school district, or the breeds of live stock. These and other studies are important contributions to the study of agriculture, and may be followed to great advantage as diversions from the regular school courses.



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The Right Attitude

But all this is of little avail in reinforcing country life unless the teacher herself or himself has the right attitude towards country life, realizes something of the importance of agriculture as a science and as an art, and something of rural values as distinct from urban values. Whatever knowledge of agriculture the teacher may or may not gain in these short

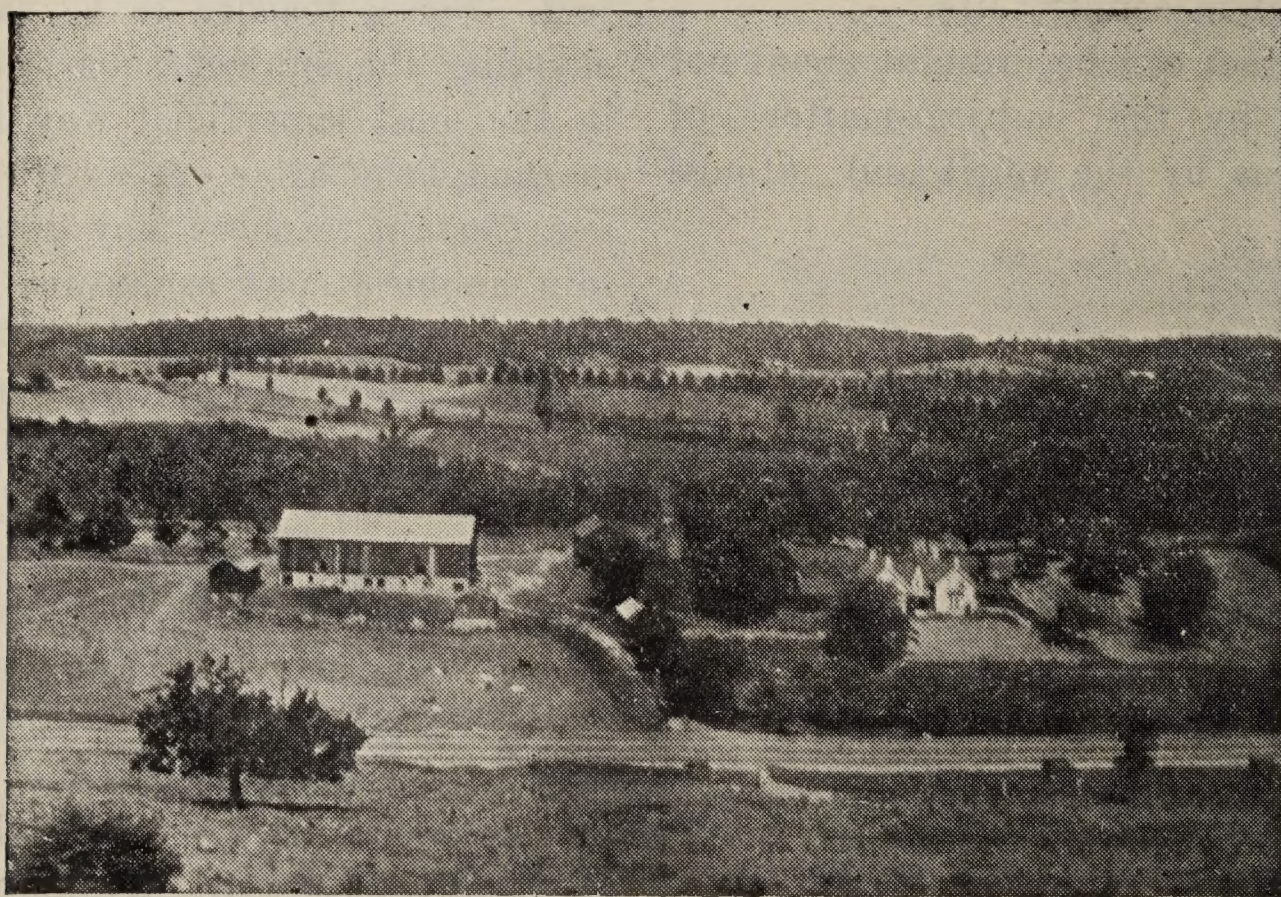
courses, and at the best that knowledge must be small,—the purpose of the course is attained if the point of view is caught.

It requires some insight and imagination to get the effect. A month's residence at an agricultural college should convince anyone, with a reasonable gift of observation and imagination, that here is something big, something tremendous. These numerous buildings, these laboratories and classrooms, barns, gardens, fields of grain and herds of stock, this large staff of teachers, professors, and investigators—what is it all about?

in the well-being of the nation.

The Seeing Eye

The teacher who hopes to take a right place in the life of the country school district must cultivate the seeing eye and the understanding heart for persons and things rural. The usual, popular, melodrama, comic supplement, moving picture conception of the farmer and of country people must be forgotten. It is essentially and perniciously false. The farmer is something of a humorist, and takes delight in deceiving the simple-minded by a somewhat unfinished exterior. The city-



‘That hundred-acre mixed farm out in the country—’

That hundred-acre mixed farm out in the country, the problems it thrusts day after day upon the man who is working it; the farm home associated with it, and its problems of work and leisure, recreation and social life; the rural community; these form the justification for the agricultural college and all its works. When this is clearly seen, some idea is gained of the significance of that hundred-acre farm, the farm home, and the rural community,

bred person makes the fatal mistake of judging by outside appearances. To the city-trained eye there are two classes of persons, one wearing overalls and the other wearing white collars. The former class work with their hands. The latter class work with their brains. That is the superficial judgment, which ignores the fact that there is a very great deal of clear, hard thinking done to-day by the men wearing overalls. At any rate, the

farmer belongs to both classes. The more he understands of these discoveries which it is the business of the agricultural college to make, the more he absorbs the teaching which it is the business of the college to spread abroad, the better farmer will he be. In order that the teacher may acquire the insight to find the real farmer in the puzzle, it is necessary to realize how large are the intellectual demands which his occupation and his business make upon the farmer of the present day. With this realization comes a new respect and admiration for farming and farmers. That is the first step toward the right point of view.

Country Life Interesting

The second discovery the understanding teacher will make is that farm work and country life are interesting. I do not mean interesting as a novelty and a casual spectacle to the visitor. I mean to one doing the work and living the life. There is nothing that more clearly distinguishes one person from another than the quality of things that interest the mind and please the fancy. "Tell me what you like," says Ruskin, "and I will tell you what you are." Of course it may mean nothing to some persons to be told that country life is interesting. They simply do not believe you, or more correctly, perhaps, do not understand you. It is the case of Abraham Lincoln's alleged endorsement of a doubtful show. "For those who like that kind of thing, it is just the kind of thing they like." With respect to farm work and country life, one may put the case variously thus: to rightly trained and educated people, farm work and country life are interesting; or, it is entirely worthwhile so to cultivate one's tastes and desires as to be interested in country

life. That farm work furnishes abundant material with which to interest the trained mind is undoubted. It is monotonous only to the dull and the uneducated. No kind of every-day experience affords greater variety than farm experience.

If we wish to indicate two distinct types of mind that are interested in quite contrary types of things, we may describe them as city-minded and rural-minded. The city-minded person demands the thronging crowds, the high lights of the streets, the unusual, the spectacular, the sensational. These are his marvels. The rural-minded person finds his marvels in the commonplace, in the things that happen every day,—the rising and the setting of the sun, the shifting forms of clouds, the wonders of generation and birth and growth; the control of natural processes by human intelligence and skill. Farm life may be relatively unprofitable and arduous and therefore uninviting to those who seek ease or large profits. But it is interesting. This also the teacher who wishes to fit into the country picture must learn. To learn it there must be developed "the disciplined habit to see."

Growing Urban Influences

For a full generation the national life in Canada, in its thinking and aims, has been marked by the growing influence of the towns and cities. Rural values have diminished, rural mindedness has been scorned. So much is this so, that rural values are not accepted even in the country, and people living in the country have become too much inclined to accept and adopt city standards in all things. That the change has been for the good of the nation, no true patriot will claim. Industry, thrift, prudence, intelli-

gence, resourcefulness, sanity of judgement and steadiness of conviction are qualities of character essential at all times to the well-being of the nation, and particularly needed now. These qualities are best produced under the conditions of country life. But so greatly has the town influence increased, that only the shrewdest and clear-

est-sighted of country people have not bowed the knee to Baal. What one needs is respect for and faith in one's occupation, and satisfaction in one's way of living. Let the teachers find this point of view towards the farm and country, and become to the country schools worthy apostles of a worthy gospel—Courtesy: Agricultural Gazette

The Breeding of Vegetable Crops.

An Address

By PROF. J. W. CROW.

MY experience in Vegetable Breeding has shown me something of the great possibilities of improvement



Prof. Crow explains a Technical Point

of vegetable crops, as well as many of the difficulties which beset the problem. In my opinion it would be difficult to over-estimate the importance of developing new and improved varieties. I expect this audience would agree with the statement that variety

is one of the most important factors making for success in connection with the business of vegetable gardening. It is probably not over-stating the case in the slightest to say that next to the man himself the variety to be grown is the most important single item which requires to be considered.

It would be impossible to exhaust the list of improvements which are urgently needed in vegetable crops and which are well worth striving for. Many of our vegetable varieties are very impure with respect to type and in some cases the unmarketable or undesirable types within a variety may be so numerous as to materially lessen the value of the crop produced. A great many varieties are deficient in yield, vigor, earliness, quality, drought resistance, disease resistance or other qualities. It is probably well within the mark to say that the value per acre of many of the garden vegetable crops could be increased by breeding to the amount of 25 per cent. or even 50 per cent. of their value. In many cases, also, this improvement would be in the direction of eliminating the risks to which the growing crop is subject,

thereby again directly increasing the returns to the grower. The work of improvement by breeding has been under way longer in cereals than with any other crops, concerning which records of yield are available. In the Province of Ontario, accurate statistics covering a period of some thirty-two years, show that in that period the yield of barley per acre has increased 21 per cent., winter wheat 12 per cent., oats 10 per cent. Dr. C. A. Zavitz, of our institution, who has himself produced several noteworthy varieties of cereals, states that this increase in yield per acre is without doubt largely due to the development of new varieties by breeding. Additional examples of the possibilities of improvement by breeding are already familiar to you in the work of Livingstone with his tomato, Eugene Davis with green house vegetable crops and Jones, of Wisconsin, who has developed strains of the Wisconsin Hollander cabbage entirely immune to yellows. You are probably also familiar with the excellent work done by Dr. J. B. Norton, at the Asparagus Breeding Sub-Station, Concord, Mass., in the development of vastly improved varieties which are being distributed by the United States Department under the name of "Washington Asparagus."

Our work in vegetable breeding was undertaken with the idea of producing strictly high class stock seed of the important varieties grown in our Province. The work was begun under the war-time necessity of growing our own seeds, instead of depending on European supply, but we have found it much more difficult in most cases than we expected. Our experience is that most of our vegetable varieties are very far from pure and many are very mixed indeed. We have obtained what

we consider excellent results in the breeding of Paris Golden Self-Blanching Celery and besides maintaining the best type of this variety as grown from French seed, we have also developed a medium green, "easy-blanching" type of Paris Golden, much freer from disease than the original, and a dark green strain which looks decidedly promising as a winter sort. We have also been successful in developing very fine types of long-standing spinach and were able to harvest a full crop this season when commercial sorts proved a complete failure. We have developed an extra early and heavy yielding strain of Jersey Wakefield cabbage. In Grand Rapids lettuce we are working with stock originally obtained from Mr. D. N. Shoemaker of the United States Department of Agriculture and have a very fine strain bred from this seed. We are working also with Chantenay Carrot, Detroit Beet, Southport and Danvers Onion, Beans, Tomatoes, Rhubarb, and Asparagus. In the case of the last named we are fortunate in having secured from the United States Department of Agriculture, through the kindness of Dr. Norton, a stock of plants of very great promise.

In some cases we have to report total or partial failure, up to the present, but aside from the rare accidents which have occurred I feel that our failures have been due to faulty methods of breeding or to the poor quality of the stock we started with. Through our mistakes we have profited greatly with respect to determining correct principles and methods of work. It appears to me that the basis of all improvement in vegetable crops is the isolation of improved strains. This is simply a matter of saving the seed of choice individuals separately and of testing the progenies out separately un-

der uniform conditions. This method is quick of results with self-fertilized plants such as lettuce, celery, parsnip, pea and bean, although it appears that under some conditions the last named will cross-pollenize to a very slight extent.

Isolation by this method is slower with cross-fertilized plants such as corn beets, carrots and onions, but is nevertheless capable of bringing about considerable improvement. Where self-fertilization can be practiced with this class of plants progress will be much more rapid and in our work we are now self-fertilizing onions and beets and experimenting with the self-fertilization of other plants which are normally cross-pollenized. There can be no question but that selfing is the quickest way to purify a strain because it leads to the immediate detection and elimination of undesirable types. It would appear from the work of Jones of Connecticut with corn that the loss of vigour which commonly occurs when cross-pollenized plants are subjected to self-fertilization, is not a serious matter. It is likely that when cross-fertilization is again allowed to take place within the purified strain the lost vigour will be fully restored.

Our experience suggests that those vegetable crops which are cross-pollenized are very much mixed and that only a small percentage of selected plants can be expected to produce a high average of stock.

The possibilities of improvement by the simple method of isolating choice plants and their progenies are very great. This is the method which has given the cereal breeders most of their new varieties up to the present. To be strictly accurate in statement, this method does not really produce new varieties at all, but simply discovers im-

proved types which were there all the time.

In case it is desired to effect new combinations of characters the method used is that of crossing or hybridization. It is probable that many of the failures in hybridization in the past have come about through the use of impure material and it would seem to the writer that the best results are likely to be secured when the strains used in crossing have been subjected to thorough testing and purification by isolation.

The newer knowledge of inheritance tells us that in crossing plants which come more or less true from seed it is necessary to go to the second generation before one can expect to find the new combination desired. It is now known that many characters behave as "recessive" in crossing and in the first generation are obscured by other characters which behave as "dominant." There is great improvement yet to be made in vegetable crops by crossing different varieties or different types so as to effect better combinations of desirable characters. Unfortunately, quality in vegetables is not often found associated with vigor, size, disease resistance or yield and the extent to which it would be possible to effect these much to be desired combinations is not known at present.

All gardeners are interested in the breeding of vegetable crops for resistance to bacterial and fungus diseases. Unfortunately, plant physiologists are not offering us so much encouragement in connection with this matter as we could wish. Dr. E. M. East, one of the foremost plant physiologists and geneticists considers that there is probably as great diversity in virulence of different strains of the same disease organism as there is of resistance in dif-

ferent strains of a host plant. In more than one instance a variety which has been developed to the point of successful resistance in one locality has fallen down when grown in another district. Until plant pathologists and physiologists are able to inform us more definitely on this point the only thing we can do is to go ahead with our work. If our "resistant" varieties succeed, well and good. If not, we shall have to ask our pathologist and physiologist friends to discover for us the reason of failure. It seems at present as though breeding for disease resistance is more or less of a local matter and as though the transfer of infected seed or plants from one locality to another should be carefully guarded against.

It is probable, also, that improvement in vegetables is to some extent a local matter in any case. One would not expect to develop a garden beet, for example, which would succeed equally well in Southern California, Manitoba and Long Island. It is probable, therefore, that the best results can only be secured by carrying on the breeding of the crop in the locality in which the stock is to be grown. My firm conviction is that the necessary breeding work for vegetable crops for the United States and Canada cannot be done to best advantage in California, although that state is certain to produce in the future a large part of the seed supply of both countries. It is my opinion that the best results, in general, can only be secured by carrying on in each State or Province the work of breeding high class seed. This stock seed can be grown for increase in California or elsewhere if desired.

This matter of breeding for local requirements has another application which is of great interest to glasshouse growers. It is probably safe to say

that varieties for green house use must be developed under glass and under normal cultural conditions for the crop in question. It is probable, also, that greenhouse growers will require two sets of varieties, one for spring and one for fall use. My limited experience with glasshouse crops suggests that the same variety does not succeed equally well in November and in May and reasoning from what I know of plant behaviour I should not expect such to be the case. I do not expect that a successful November and December variety could be developed by working with the spring crop.

This same matter has also a further application to the breeding of outdoor crops for different seasons. One would not expect the earliest spinach or lettuce to endure hot weather and conversely one would not expect a long-standing variety to be extremely early. The combination is obviously not possible and in breeding for special purposes, it will no doubt be necessary to sacrifice in other respects.

In connection with this matter of vegetable breeding there is one point of very great importance which would be well worth the attention of this convention. I find very great difference of opinion among experts as to variety types. If a method could be devised of getting at standard types it would be of great value to market gardeners and would insure uniformity in the same variety from different breeders. We are working toward a solution of this problem by photographing the several types which occur in one variety and submitting these to experts. It seems to me this convention might well appoint a strong committee to take this matter up and if possible decide on types to be recommended as standard.

The International Institute of Agriculture

Its History, Organization and Activities.

By T. K. DOHERTY, B. A., L. L. B., Commissioner.

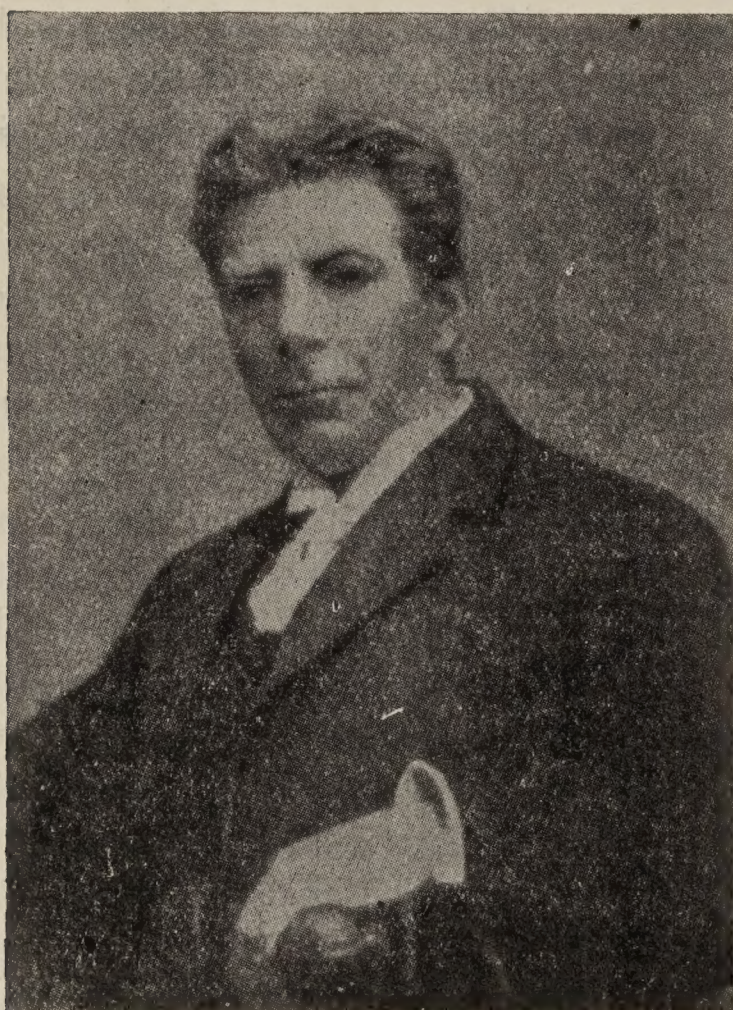
THE International Institute Branch of the Department of Agriculture has gradually evolved from the International Convention, signed at Rome in 1905, which brought into being the International Institute of Agriculture, with headquarters at Rome. This was the outcome of the activities of a rich Polish Jew, Mr. David Lubin, of Sacra-

mento, California. In connection with the organization of the agriculturists of the world, the General Assembly of November last decreed that his marble bust, the work of the eminent artist, Mario Rutelli, be placed in the splendid atrium of the Institute Palace, and that his seat in the Assembly Hall be engraved with his name and kept permanently vacant.

Mr. Lubin's original conception was concerned chiefly with means to overcome the isolation of the farmer through lack of organization and co-operation. He was, early in his career, impressed with the disadvantages under which the citrus fruit growers of California marketed their fruit; and he did much in that State to promote the forms of co-operation which have today reached such a high state of development.

The Leiter wheat corner of 1898, and other similar interferences with the normal course of the supply and demand of staple food products, inspired Mr. Lubin with the idea that the farmers of the whole world might, with advantage, be induced to co-operate to prevent such occurrences. Hence the idea of an international crop report system was the central motive of his original proposals, which resulted in the establishment of the Institute.

The convention of 1905, based largely on the report of an Italian Commission of agricultural scientists and economists who, accompanied by Mr. Lu-



DAVID LUBIN

Founder of the International Institute

mento, California. Mr. Lubin dreamed many dreams of International co-operation and fraternity; but he realized this particular one through the munificent support of the King of Italy. Mr. Lubin died in January, 1919, and, in commemoration of his great work in

bin, visited all the departments of agriculture of Europe, extended his original conception. It was now to comprise every object of practical interest to the farmer, namely: production, trade, markets, the latest forward steps in scientific and technical knowledge, economic and social organization, legislation, and administration. There was to be, in short, a world-wide community of agricultural interests. Just as the national developments of agriculture round out and complete the municipal and provincial work in agriculture, doing for municipalities and provinces what each in particular could not do, so the International Institute was to make the experimental work, the results of huge expenditures, and the progressive steps of the various departments of agriculture of the world and of their co-operating scientists, in a sense the common possession of the farmers of all countries.

It was not until the spring of 1908, however, that the delegates of forty governments met at Rome in the palatial edifice built from the King's annual contribution of sixty thousand dollars, and gave more complete form to the Institute as an instrument for carrying out the divers objects of the Convention of 1905. The number of adhering countries has since increased to sixty. An international staff of specialists was engaged to procure from the various governments the necessary documentation. But it was not until January of 1910 that the Institute's first publication, the *Bulletin of Agricultural Statistics*, began to appear. The *Bulletin* was followed, at the close of the same year, by the monthly publication of the *International Review of the Science and Practice of Agriculture* and the *International Review of Agri-*

cultural Economics. Then appeared the *International Year Book of Agricultural Legislation*, which covers all the legislation on different phases of agriculture enacted in the adhering countries during the previous year; also, the *International Year Book of Agricultural Statistics*, a very comprehensive work including details of the world's production, trade, and prices of agricultural products in full detail for the previous two years compared with the preceding ten years. From time to time many valuable monographs were published. In view of the increased cost of the Institute's printing and staff, and the calling for more extensive and effective work in all the bureaus, the last General Assembly raised the contributions of the adhering countries to more than double those previously paid. The Crop Report and other statistical services are in particular to be extended so as to comprise a great variety of crops and fuller details of each crop and of live-stock.

Up to 1910 the work of collaboration with the Institute by the Canadian Government was carried out from the general offices of the Minister of Agriculture. This work, however, grew to such proportions that it became necessary in 1910 to organize a special bureau for the purpose of supplying continuously a considerable amount of varied information required by the Institute, and to effectively disseminate in Canada the information collected and published by the Institute.

At first this bureau was charged also with the preparation and the carrying out of a scheme for the more effective and economic distribution of all current publications of the Dominion Department of Agriculture. The *Bulletin of Foreign Agricultural Intelli-*

gence, which was first published in the fall of 1910, under the title of "Publications of the International Agricultural Institute," was the organ gradually developed by the new Branch (bureau) for the dissemination throughout Canada of the Institute's information.

By the end of 1913 the work connected with the distribution of publications had grown very considerably. In November of that year the distribution division of the Branch was separated from it and also given charge of the publication of the *Agricultural Gazette* of Canada. Two years later the *Bulletin of Foreign Agricultural Intelligence* was merged into the *Agricultural Gazette*. The chief features of the Institute publications thenceforward appeared in a more summarized form as Part V of the *Agricultural Gazette*, prepared and communicated regularly by the Institute Branch.

In the meantime, the Institute Branch proper had considerably developed the library which had been successfully evolved from the initial stages of the Branch in 1910. This library collects, catalogues and classifies material which enables the Branch to perform its chief functions, namely to supply information concerning Canada required by the Institute, and to make available to Canadians the results of the work performed at the headquarters of the Institute, and generally all classes of information from all other sources concerning foreign agriculture.

At the time the Great War broke out, the international exchange of publications for the library, concerning which preliminary steps had been taken in 1909, had extended to over fifty governments, the majority of which continued during

the war. The others which did not continue have since resumed, while other governments have come in, so that the present total of exchange countries is over sixty.

The Branch has gradually acquired, either by gift or purchase, practically all the latest books relating to agriculture and connected sciences. There are now on the shelves of the library nearly 9,000 bound books, besides unbound publications, reports and bulletins which number approximately 60,000. To make this mass of information readily available, over 210,000 catalogue cards have been acquired or prepared in this Branch, so that all this material is catalogued by author, subject and title.

A reading room, containing some seven hundred periodicals, is also available in the Branch, as well as an effective indexing system by which the latest current information may be quickly found and utilized. In order to realize this desideratum, all the periodicals covered by the *Agricultural Index*, published by H. W. Wilson Co., New York, have been acquired by the Branch; besides as many as possible of the European periodicals, the substance of which is summarized by the Institute in its publications. In this way not only are the summarized accounts of articles published by the Institute, available through the Institute's own publications, but the original publications and periodicals from which the summaries are derived are placed at the disposal of Canadian specialists who desire to investigate in detail.

Therefore, the development of the Branch is more and in the direction of making completely

available to Canadians, not only the information collected by the Institute at its headquarters, but also all other documentary information of a supplementary nature. The Branch is, therefore in this direction an institution, or, as it were, a sort of permanent commission, for the investigation of questions relating more particularly to agriculture outside of Canada; although the collection of Canadian publications in the library, whether federal, provincial or institutional, is also quite complete.

These services of the Branch are placed at the free disposal of Canadian agriculturalists, whether they reside at the seat of government or not. In order that advantage may be taken of these facilities, it will be useful to specify more particularly in the following paragraphs what kinds of service may be rendered.

In the course of its publicity work, the Branch has furnished a considerable amount of detail on certain topics, and certain features of information, comparatively new to Canadians at the time of publication. This is still available in a few copies of the publications which yet remain, and may be obtained upon application to the Branch. The following are a few of the chief titles:

A series of articles on birds and their value to agriculture, including: "The value of birds to man," "What birds do for agriculture," and "Some common birds useful to the farmer."

Also, many articles on agricultural meteorology, notably several articles translated from the Russian, the methods described in

which were later adopted in the United States and Canada. This Branch was actively associated with the Meteorological Station in Toronto in starting the organization of an agricultural division and determining some of its lines of activity.

Other important articles are: "Protection of orchards against frost," "The basis of international statistics of agricultural bookkeeping," "A system of accounting for co-operative fruit associations," "Fibre flax," and "International control of ocean carriage and freight rates."

Articles on various forms of agricultural co-operation and agricultural co-operative credit have appeared from time to time during the last ten years. A separate index covering most of these, as well as the articles on the Science and Practice of Agriculture and other subjects, may be secured upon application to this Branch, which has been frequently consulted on questions of co-operation.

During the early part of the war, in the War Bulletins of the Department of Agriculture, and since the war, in its communications to the Agricultural Gazette, the Branch has from time to time given summary presentations of the world's food, and particularly its cereal and live-stock, situation. In these articles, not only material from Institute bulletins is used, but from any other source which may offer the most up-to-date information.

These statements, accompanied by copious statistical detail of the world's crops of the preceding year, and of its present supplies and future prospects, are usually published in the early spring, when such

knowledge may aid the farmer in the selection and distribution of his crops and his operations for the current season. These statements are also published early in the fall, in order to guide the farmer in the marketing of his new crop. Correspondence is solicited from persons or associations desiring fuller information than is being published in connection with this crop reporting service.

One of the duties of the Commissioner of this Branch is to attend the meetings of the General Assembly of the Institute at Rome, normally held in the spring of every second year. From the acceptance of his proposal, made at the General Assembly of November last, that the world's crop reports should be secured and cabled on or about the tenth of the month instead of the twentieth, it is believed that the resulting of more rapid service will to a great extent forestall any unreliable reports which interested bodies may issue—as they have been issued—at an earlier date, often for the purpose of taking unfair advantage of the producers who lack up-to-date information. The Commissioner's further proposal—that, in the translation into English of the Institute's statistical bulletin, the metrical system be dropped and American weights and measures (acres and bushels) substituted—has already been adopted in part, so that the original statistical bulletin may now be read and quickly understood by the busy producer and trader. They are advised to become regular subscribers to the bulletin. It is published about the twentieth of the month, and contains ample details of the

world's production of all staple farm products, and also of the import and export trade of the various countries; and of prices, expressed in such a manner that the domestic price may be compared with that of the chief importing countries.

The visible and invisible supplies are dealt with, although the statistical services of many countries are not yet sufficiently developed to furnish prompt and satisfactory data.

Because of the presence in the library of nearly all the periodicals (European and American) summarized in the two monthly bulletins of the Institute, Canadian agricultural specialists, not only in Ottawa, but all over Canada as well, frequently apply for and receive communication of the original detailed articles.

Bibliographies are prepared, to aid investigators concerning particular questions; and sometimes these are amplified by special investigations to determine more precisely, in the mass of available material, the information that may be required in a specifically described case. Such specific information is frequently sought after and furnished in connection with the organization of various kinds of agricultural co-operation and agricultural co-operative credit.

A Commission, recently appointed for the purpose of preparing a report on which to base an important provincial law, has taken full advantage of the facilities offered; making a prolonged visit to the Branch and securing for a short time the loan of a great number of valuable works.

At intervals of a couple of months, lists of the new books received at the library are prepared and circulated to Federal and Provincial agricultural authorities, and scientific agriculturists, who may borrow these books for a short time if they give satisfactory reasons and guarantees. In the month of February last, in response to applications for twelve hundred, it was found possible to loan the most of them.

The world's grain and live stock production and trade are frequently investigated, either at the offices of the Branch or through correspondence. As examples of the special tasks which the Branch sometimes undertakes, may be mentioned two of those at present in the course of treatment, namely, the collection and analysis of the data furnished by the various governments of the world as to their agricultural expenditure; the collection and analysis of the information concerning the importation, manufacture, sale and uses of chemical fertilizers in Canada. A decision of the last General Assembly calls for this information from all the adhering countries, as well as a great mass of detailed data corresponding to the increased activities recommended in the Assembly's other numerous decisions. The General Assembly meetings, the first since 1913, were held at Rome November 3-11 last. One hundred and fifteen delegates, representing forty-eight Governments, were in attendance, including practically all the European countries except Austria and Turkey.

The proceedings were opened by His Majesty, the King of Italy, who

took occasion to have it announced that, in addition to his gift of \$60,000 annually, he had decided to make a donation of one and one-half million lire from the resources of his private estates, for the purpose of further extending and improving the Institute Palace.

Owing to the rise in the cost of printing and of the staff, the Assembly decided to ask the adhering Governments to make a supplementary contribution for the years 1921 and 1922, equal to one and one-half times the ordinary contribution, and payable by each country in its own money on the basis of the par value of the franc.

The decisions were quite numerous, and only the most important ones are here merely indicated. In connection with all the Institute's services a system of continuous correspondence between the Governments and the establishment for this purpose of a special Bureau is recommended on the lines followed by the Canadian Office and commended in the Institute's official report to the Assembly. Tea was added to the products to be reported upon regularly. The Institute is to secure, through an elaborate schedule prepared by Sir Daniel Hall, and publish the results of inquiries into the methods adopted during and immediately following the war for the purpose of increasing agricultural production. The American Delegation recommended appointing an agricultural attache to the embassies of countries that trade with each other to a considerable extent. There is to be in each country a Permanent Committee of Agricultural Meteorology, also a Central Bureau of Agricultural Accountancy.

Professor Eriksson's plan for the creation of an International Research Institute of Plant Pathology was approved. Governments are requested to provide scholarships to enable students to complete their studies at the Institute. The Governments are further requested to establish a Consultative Committee of specialists for the purpose of co-operating more directly with the different Bureaus of the Institute, and meet in annual conference in Rome. The proposal of the American delegation that the English language should be recognized as official as well as the French was rejected. The proposal was the occasion for a debate, in which the British delegates expressed the wish that the majority of the publications of the Institute, including the proceedings, be translated into English. The Canadian delegate suggested that the Year Book of Legislation should be included, and in the translation of the Statistical Bulletin he suggested that there be substituted for the metric system expressions of area and capacity more readily understood in English speaking countries.

In the course of a long debate there was a vigorous protest against certain features of the forthcoming conference of the International Bureau of Labour at Geneva. It was understood that agricultural labour was to be dealt with, and there was a fear that an 8-hour day would be fixed by the delegates who formulated the demands of town labour and did not understand agricultural conditions. The lengthy debate on the subject was sent in extenso to the

Departments of the Interior and of Agriculture in the various countries. There was enthusiastically expressed a desire to co-operate with the League of Nations so as to prevent future wars. In such co-operation it was deemed there should be no question of the full autonomy of the Institute, notwithstanding Article 24 of the Treaty of Peace, which seemed to suggest control of the Institute by the League of Nations.

The British Delegation in its own report while freely criticizing the details of the organization and activities of the Institute, expressed the view that the experience of the war and the food prices have shed a very strong light upon the importance and even the necessity to all countries of some such organization as the Institute; that no one State is in the advantageous position in which the Institute stands, either as regards facilities for the collection of information or experience in handling it; that, as the discussions concerning the organization of a League of Nations have shown, if the International Institute did not exist it would now be necessary to create a body performing similar functions. The British delegation urged that, difficult as the financial situation may be, Great Britain should not hang back but accept the obligation entailed in retaining the leading position she has always assumed in connection with the Institute. The British Delegates are persuaded that Great Britain will be fully repaid for her contribution by the use that will be made of the work done by the Institute.

In The Way They Should Go:

The Prince Edward County Calf Clubs

By L. H. HANLAN, '22

THE County of Prince Edward is a complete Island, since the Murray Canal cut off its one and only isthmus some years ago. It is surrounded by the Bay of Quinte on the north and Lake Ontario on the south, east and west, and is known throughout the length and breadth of Ontario as "The Garden County" of the Province. And rightly so, for it is the proud possessor of no less than 26 large canning factories which turn out the remarkable extent of one-half of all Canada's canned goods.

While the people are proud of their truck industry, yet they have been far-sighted and broad-minded enough to realize that man could not live by the "can" alone, and accordingly there has been built up a paying and extensive dairy industry that ranks high with that of other counties, there being 22 large cheese factories and two milk condenseries in operation at the present time.

Possibly there has been one feature more than anything else responsible for the rapid and remarkable development of the dairy industry, viz., that the people as a whole have decided upon a breed of dairy cattle that would, in their opinion at least, and under their almost ideal conditions, give as good results as any other, viz., Holstein.

Almost to a man have those grading up their herds used pure bred Holstein bulls, as have the men

going in for pure-breds at all gone in for Holsteins. Their choice seems to have been a very wise one for their success has been enviable, and to-day some of the finest pure bred Holsteins in the Province are to be found in Prince Edward, as the following records go to prove:

1. Countess Alcartra Segis, a senior yearling owned by Ed. B. Purteile and tested in 1920, with a 7-day butter record of 27.16, and a 106.34 butter record in 30 days, which was a world's record.

2. Segis Alcartra Prescott, a Jr. four-year old, owned by B. R. Leavens, tested in 1921, with a 33.47 7-day butter record, and 130.6 in 30 days.

3. Echo Pontiac Prescott, a mature cow, owned by Hubert McDonald, with a 7-day record of 737.4 lbs. of milk, 33.84 lbs. butter and a 30-day record of 2986.5 lbs. milk and 139.29 lbs. of butter.

4. Helena Burke Keyes, owned by A. D. Foster & Sons; a mature cow with a 7-day record of 713.4 lbs. of milk and 33.28 lbs. of butter, and 2,859 lbs. of milk and 138 lbs. butter in 30 days.

It is records like the above that make the most progressive men of a county sit up and take a pride in the fact that they themselves are working along similar lines and with equal efforts may reasonably hope to accomplish similar, if not superior, results. For it may be added that there are numerous re-

cords in the county almost as good as those quoted, but space will not permit of further listing.

It is not to be wondered that, when the Advisory Agricultural Council of Prince Edward County met the past winter to discuss ways and means of interesting the boys and girls of the county in a higher type of agriculture, they unanimously decided upon the formation of a Pure Bred Registered Calf Club. Needless to say, their decision received the hearty support of A. P. MacVannel, Agricultural Representative, and accordingly pamphlets were immediately gotten out giving

the feeding and breeding of better cattle.

(d) To encourage the proper care and management of stock and the best methods of feeding.

3. The Club will be directed by a Committee of Prince Edward Advisory Agricultural Council, assisted by the Agricultural Representative. Money will be advanced by the Bank of Nova Scotia, Picton.

4. Membership open to boys and girls of 12 and under 20 years of age.

5. Pure Bred Registered Heifers only will be distributed, allotment being made by drawing. The anim-



introductory explanations and full details as to rules and regulations, as follows:—

1. The Club shall be called the "Prince Edward County Pure Bred Calf Club."

2. The objects of the Club are:—

(a) To create a deeper interest in Pure Bred Live Stock in Prince Edward County.

(b) To provide a good lot of Pure Bred Registered Heifers in the hope that they will be used as foundation stock for a splendid herd of improved cattle.

(c) To interest boys and girls in

als will be purchased by Live Stock Representatives of the Ontario and Dominion Departments of Agriculture.

6. All calves will be distributed from Picton on the same day.

7. All heifers will be registered in the boy's or girl's name.

8. A note of twelve months will be given by the member.

9. When the note falls due, the calf must be paid for and cannot be sold before this is done, except at an auction sale.

10. A Special Class will be included in the Prize List at Picton Fair for members of this Club.

Members will also be entitled to enter their animals in regular classes at the Fair.

11. All heifers kept by the boys and girls must not be bred until approved by the Committee.

12. The Ontario Department of Agriculture will assist in any way possible by giving information on feeding, care, etc.

13. Only one member of a family will be supplied with a calf.

14. The Committee reserve the right to limit the membership, reject an application or make additional rules they deem advisable for the satisfactory conduct of the Club.

15. Applications will be considered in the order in which they are received.

16. All animals will be insured against loss by accident, disease, fire and lightning, and cost of same will be added to purchase price.

17. A sale will be held in Picton at least one week previous to date at which notes mature. All animals must be entered and brought to the Sale. Owners may bid in their own animals.

These pamphlets were distributed to those interested throughout the County, and applications commenced coming in. As soon as fourteen had been received, Mr. R. S. Stevenson, one of Ontario's oldest and most noted breeders and judges of Holsteins, was called in to purchase the animals. Of these fourteen, all were purchased in the county, with the exception of two, which were purchased at R. J. Graham's Sale.

After the distribution it was found that several others were anxious to avail themselves of this excellent opportunity of getting away to a good commencement in the pure

bred business. It was also observed that the people of Ameliasburg Township—the most remote township from the Town of Picton—felt that they did not have a chance on account of being so far removed from the headquarters of the Club. It was then decided to organize in the above mentioned township a separate club. Some personal soliciting was then done by the writer for applications, and it was really surprising though gratifying to note that, although cheese was dropping in price at the rate of about five cents per pound per week, and many other farm products in like manner, “the brave young hearts were there” and were realizing more and more the dire need of an efficient and economical milk producer. The undaunted ambition of the boys to have and to own a better type of live stock, backed up in every case by the cautious good will of their parents, was largely responsible for the receiving of 20 applications.

Mr. Stevenson was again summoned and the Counties of Northumberland and Hastings toured for the very best animals that could possibly be purchased at a price within reach of those concerned. Finally the 20 head were secured, and the date of distribution was arranged for Tuesday, June 7th, at Ameliasburg. The boys and girls who were getting these heifers, together with their parents, were right on the job to see the big motor trucks come rolling in with from two to six in a load. “My, there is a beauty.” “I hope I draw this one.” “Here is my pick,” were frequently heard as the heifers were unloaded.

Finally all was in readiness for the draw—the hour of fate—and

only once again, or perhaps twice in the life of each individual will excitement run so high. One by one the anxious youths came forward and were "initiated" into that grand and noble calling—improvement of live stock.

After the draw a rush was made to see "which one I got;" satisfied, every one, they went with their parents to the Bank to do the official business—possibly their first; but we sincerely hope it was a good investment.

The next task was to get the heifers home to their new quarters, and most tenderly were they treated by their new owners, which was, of course, a part of their obligation before initiation.

October 1st will see them all back again to receive One Hundred Dol-

lars in prizes generously donated by the Ameliasburg Township Council, also to take part in a Judging Competition for which \$25.00 prize money is being furnished by the local branch of the Dominion Bank.

On Monday, June 6th, a second distribution was made at Picton, consisting of nine head, making a total of 23 in the Picton Club and 43 in the County. These nine were all purchased in this County.

In conclusion, we may say that members of the Advisory Agricultural Council were present at all distributions and were well satisfied that they had chosen a good and responsive method of creating interest among the farm boys and girls of Prince Edward County. May they all succeed!



The Work of the Health of Animal Branch

By DR. F. TORRANCE, B. A., D. V. Sc., Veterinary Director-General.

IT IS the duty of this Branch to protect our live stock interests from serious epizootics and to control and eradicate any contagious diseases found within our boundaries. The Branch is under the direction of the Veterinary Director General, and consists of three divisions, the Field, Meat Inspection and Pathological divisions.

The **Field Division**, under Dr. George. Hilton, enforces the Animal Contagious Disease Act, which provides for the suppression of contagious diseases in the country and the prevention of infection from outside sources. In order that the protection may be as complete and as adequate as possible it is essential that the live stock interests are first protected from the possibility of infection from foreign sources. It is, therefore, necessary to maintain a quarantine system, one for animals imported across the sea and another for animals imported by land from the south, as well as from the north. It is, of course, necessary in both instances to enforce regulations which will be most likely to protect us from the introduction of diseases peculiar to the countries from which the animals may be imported.

Importations from Across the Seas

Owing to the fact that there are several very serious diseases which

are indigenous to many continental countries, the importation of ruminants and swine from any of those countries has for many years been absolutely prohibited. The importations arriving at our Atlantic Seaboard are practically limited to those coming from Great Britain.

In order to control these importations, and also to further protect our live stock interests, these importations are only allowed under the permit plan. Intending importers must, therefore, forward to the Veterinary Director General an application for permission to import. In his application he must give the exact origin of the animals he desires to bring in, must state the number and species of the animals, and also the name of the port of embarkation and the probable date of sailing.

The steamship companies are prohibited accepting any shipments unless the permit is produced and corresponds with the animals that are to be embarked. In case they neglect to do so and accept shipments for which permits have not been issued, the company must assume full responsibility, in case it is decided to prohibit the landing of any such shipment. The importers must also obtain a certificate of freedom from disease or contact.

By far the greater number of these importations arrive at our Atlantic Seaboard, and during open navigation the majority of them

come in through the Quebec Quarantine. This is by far the largest and most important quarantine station maintained by the Department. It is possible to accommodate at one time 400 cattle, 1,200 sheep and 100 swine at the station. It is located on the Levis side of the St. Lawrence and comprises 127 acres of land. It is so located that the animals can be unloaded from the boat directly into Department cars and then switched by rail directly into the quarantine grounds. There are many buildings of various sizes, the object being to accommodate separately in one building the individual importations. A tight 10 ft. board fence encloses each stable, together with sufficient ground for exercising and pasturing.

The Superintendent of the station is a veterinary inspector and has full control and charge of the station. He has a suitable number of assistants and a close watch is kept over the grounds night and day. No outsiders are permitted to enter these grounds, except under special privilege. No vessel carrying live stock is permitted to dock until a certificate of health is given the Customs by the superintendent. He is taken out to the boat, and if he finds they are properly covered by permit, makes a careful inspection. If no disease is found the boat is permitted to dock and the animals are taken into quarantine.

As I have previously indicated, these animals do not get onto soil until they are within the quarantine grounds. The animals are then allotted to their special quarantine quarters, where they remain isolated for a period of thirty days from

date of unloading in the case of cattle and the same period for sheep and swine, except that it is reckoned from the date of embarkation. The cattle are tested with tuberculin during the detention period and reactors are permanently earmarked. Two smaller, but important quarantine stations are maintained, one at St. John, N. B., and the other at Halifax. These, with the exception of Charlottetown, P. E. I., constitute our quarantines on the Atlantic Seaboard. We have no buildings at Charlottetown and no importations are, therefore, permitted at present through that port.

Although St. John and Halifax stations are in operation the whole year round, the larger number of importations come through these ports during the closed navigation, when the Quebec Quarantine is closed.

Quarantine stations are maintained on the Pacific Seaboard at Victoria and Vancouver, but overseas importations at this seaboard are very limited.

In order to prevent the possible introduction of disease by land, quarantine stations and inspection ports are maintained at suitable points along the International Boundary, separating this country from the United States, from the Atlantic to the Pacific along the south, as well as the Alaskan boundary at the north. Veterinary Inspectors are in charge of these ports, whose duties are entirely, or very largely, devoted to examining all animals and to conducting whatever tests are necessary before permitting their entry. There are approximately forty-two quarantine

stations and forty-eight inspection ports on this boundary.

Permits are not required for animals from the United States, but there is an existing agreement between the American authorities and those of this country with regard to the regulations governing the importation of animals into Canada, as well as those into the United States. Similar district health certificates are required for both countries, and test charts must bear the signatures of Federal veterinarians. We have so far been fortunate in preventing the introduction of foot and mouth disease, although during the last ten years three very serious outbreaks have occurred in United States' territory, two of which were dangerously near our borders. We have not, however, been so fortunate with regard to some other less dangerous diseases. The transit in bond of American stock through our country is attended with danger, and it is, therefore, necessary to watch these shipments most carefully. These shipments are only permitted to enter and pass out of Canada at certain points, where proper facilities exist for inspection. Each shipment is carefully inspected at port of entry, and if not satisfactory is promptly returned. The cars in which these animals are conveyed are specially fitted with 10-inch foot-boards, which must be applied in such a way as to prevent any litter falling out of the car. The car must also be in a sanitary state and in good order, otherwise entry is prohibited.

The measures which have been briefly reviewed are in force to prevent the introduction of con-

tagious disease from foreign sources, but in order to limit as far as possible the dissemination of contagious diseases, before they have been recognized or detected, it is essential to closely supervise the cleaning and disinfection of stock cars, yards and chutes. There is possibly no surer way of spreading contagious diseases far and wide than by neglecting this very dangerous source of dissemination. The importation of stock cars is, therefore, prohibited, unless they are in a sanitary state, and show evidence of recent cleansing and disinfection. While the veterinary inspectors have full power to detain any dirty stock cars, whether of Canadian or foreign origin, a number of lay inspectors are employed who devote their whole time to cleaning the cars. All stock yards are systematically cleansed and disinfected under official supervision.

A regulation is also enforced, which requires the holding for disinfection of all empty stock cars arriving at certain divisional points throughout this country. An officer is stationed at each of these points to enforce this order, and to supervise the work of cleansing and disinfection.

The channels through which contagious diseases may be introduced are so numerous and obscure that however carefully and thoroughly precautionary measures may be carried out by the most earnest and vigilant inspectors, we find outbreaks occurring in the country and are often unable to ascertain the true source of the infection. It is, therefore, essential to maintain an adequate force of Veterinary Inspectors located at suitable

points to permit of prompt investigations of suspected outbreaks.

The field officers have been called upon to deal with some very serious and extensive outbreaks of glanders, scabies and hog cholera, and have also experienced trouble with cattle and horse mange, dourine, anthrax and rabies. The work of the field veterinarian in controlling these diseases, under many difficulties and trying circumstances, has been of a very high order.

Glanders was especially prevalent in Manitoba and Saskatchewan eleven years ago, and this disease also existed to an alarming extent in Ontario. In five years the field officers destroyed about 8,000 horses and mules, which were valued, under the Act, at approximately \$900,000, nearly 50 per cent. clinical.

Probably one of the best examples of the work of this branch was the successful eradication of glanders in Manitoba, where nearly 2,000 horses and mules were destroyed within a period of four years, and thereafter a very limited number for a few years, followed by no further cases. The disease did, however, break out again in isolated districts, but it was possible to trace the source of infection to another province, and to eradicate the outbreaks promptly.

Fortunately the Health of Animals Branch has been able to control and eventually eradicate outbreaks of contagious disease in this country, and there is not any serious contagious disease, excepting Tuberculosis, which may be looked upon as being at all prevalent.

The **Pathological Division**, under Dr. E. A. Watson, Chief Animal Pathologist, carries on the manu-

facture of tuberculin and mallein, Blackleg Vaccine, and other agents used in the diagnosis or control of contagious diseases of animals. This division also does research work, with the object of ascertaining the life history of the parasites affecting live stock, of elucidating the nature of obscure diseases, and in any manner assisting in gaining knowledge upon any subject relating to the health of domestic animals.

The principal laboratory of the division is maintained at Ottawa, where all biologic products are manufactured and from which they are issued. This is headquarters for the Pathological Division, and from this office is also operated a research station equipped for the investigation of contagious diseases and other problems of the live stock industry. This research station consists of sixteen acres, equipped with the necessary buildings for the purpose.

Branch laboratories are established at Lethbridge and Agassiz, where animal pathologists are stationed to carry on work in connection with local problems and to assist the field officers in the diagnosis of obscure cases when called upon.

The Pathological Division is largely responsible for the excellent work of the branch in eradicating dourine from Canada. This insidious disease was threatening the horse-breeding industry of the North-west and promised to be extremely disastrous. Owing to the excellent work of the Lethbridge laboratory the diagnosis of the disease, from blood samples, was so highly perfected that we were

able to entirely stamp out the disease.

The **Meat Inspection Division**, under Dr. Robert Barnes, has charge of the inspection of meats in all public abattoirs doing an export business in Canada. They also examine and certify all canned goods, evaporated fruits and vegetables intended for export, and maintain a system of inspection of all similar foods imported into Canada.

The work of this division seldom comes under the public eye, but during the war, when large demands were made upon Canada for meat to feed the armies overseas, not a pound was shipped until it had passed the most careful ante and post-mortem examinations of the inspectors of this division. It is a

great tribute to the efficiency of their work that the Ministry of Food, at the close of the war, wrote a complimentary letter congratulating the branch upon the efficiency of this work.

All meat passing the inspection of the Federal Meat Inspectors is stamped with the words "Canada Approved" in blue ink, arranged in the form of a circular stamp and containing also the number of the establishment at which the meat was prepared. Persons who wish to protect themselves against eating diseased meat can insist upon having meat from carcasses bearing this stamp, which is always a guarantee that the meat is wholesome and has passed inspection.



The Usual Thing.

By R. C. FRITH, '22.

This is a little story about a beautiful girl and an ordinary man. The girl, not many years ago attended Macdonald Hall, and the boy, this spring, graduated from the Ontario Agricultural College with the Degree of B. S. A. I would like to tell you her name, for I'm sure you know her, but under the existing circumstances please submerge your curiosity and let us call her, for the sake of the story, Mary Coy; as for the man he was christened John and as that name is

short and common we will adopt it here. There are so many Johns that I fear there will be more than one of them accused of being the original of this story of wild youth.

Four short years ago Mary came to Macdonald to take the associate course, or, as some people said, to meet the boys of the O. A. C. Which was her foremost purpose I shall not venture to state but certainly she made a specialty—and a success—of the latter.



“came to Macdonald—”

John appeared as a Freshman at the O. A. C. in the same week of the same year that Mary registered at Mac. As is the usual custom these two strangers during the first few days underwent a thousand humiliating happenings; but since they were unacquainted at that time the uninteresting details of loneliness will not be elaborated.

It was at the first promenade that they met. John attended simply because his classmates did. When he got inside the Hall he became a fixture on the wall. At last a fellow wearing a badge marked “Committee” came up to him and said: “Say, you’re a fusser! Come over and meet some of these new Janes” John of course, was not a fusser; he was a bashful boy; and when he was reluctantly led into a circle of six Freshettes he became florid about the ears. The introductions were awkward moments but plucky John didn’t waver an inch—from his point of view.

As the story is so often told, one sweet young thing made a lasting impression on the confused mind of novice Johnny. She, on the other hand was quite composed and although she looked upon John with favor he was not regarded as unusual. The evening passed in a manner which would now be deemed “painfully slow” because in those

days there was no dancing at the Proms. It was simply walk and talk; and for those who didn’t like walking and for those who scorned mere talking the situation was lamentable for there was no broad gate to a dance floor.

After the promenade one object was continually popping up and tossing about on the perturbed sea of John’s mind. His previous declaration that the Sophomores’ restrictions regarding fussing would not bother him in the least were now a matter of no little irritation. Nevertheless John finally decided that it was best to refrain until after Field Day rather than have his hair clipped. That meant three weeks of anxiety.

Truly it seemed a long time; in fact too long a time, for a Soph was rapidly getting familiar with Mary. This made John have fears of not getting a “look-in” when the bar was lifted, and well he might, for a Soph with one big year’s experience behind him does not fail to take advantage of every opportunity “to get in strong.”

Mary was attractive. Many of the boys knew it and she soon knew it too. Sunday afternoon walks, literary meetings, parties, movies, dances, always saw Mary accompanied by a well-groomed man—not always the same man—but always he was fastidiously dressed.

Moreover Mary was fair-minded. She never turned one man down for the sake of another, but invariably accepted the first invitation extended. This is an admirable feature—from a boy's point of view—of Mac. Hall girls. I dare say there are cases when a girl would be justified in reserving her select company for a selected man; that is not unheard of by any means.

As time passed the race for Mary's entrancing company dwindled to two competitors; many had fallen by the wayside but John and that Soph seemed indefatigable. Often times was I amused when a group of fussers would be waiting the use of the telephone and amongst them John and the Soph. (by name Bill) awaiting their turn to call this girl. Sometimes Bill would be two ahead of John in the line-up and at other times John one ahead of Bill. Always, I noticed, that the first man to enter the phone booth was the one who was triumphantly rewarded.

One evening there were fifteen lined up for the Mac. Hall 'phone. These

fellows were securing partners for the big dance of the term—the Hallowe'en Masquerade. In the line Bill was third and John was three behind him. Poor John looked desperate; he knew his position was hopeless but his thinking apparatus didn't collapse. Very quietly he slipped out of the phoners' line, dashed across the campus, up the stone steps and boldly rang the bell, asked for Miss Coy, secured the date and returned to the residence exultant over his victory, for as he passed the phone booth Bill was just about to enter it.

I never saw any signs of direct hostility between these two students but on the following night John was dumped out of bed and heavily showered with water. For this rude awakening he inwardly blamed Bill and I've since heard that John got even with Bill by playing the same type of game.

The competition continued all fall and all winter, "who was who nobody knew" Even Mary herself didn't know. Spring came and with it those mild moonlit April evenings; on such an evening we



"An acquaintance of his owned a canoe—"

find Mary and John strolling about the campus.

On this particular evening Mary artfully talked to John as follows:

"Today some of the senior girls were talking about the boys in the fourth year taking them up the river in a canoe—last year." (Pause) Can you paddle a canoe, John? Do you like paddling?"

"Yes, but isn't it—" he was interrupted.

"Bill, is always talking about canoeing. He says he is going to get a canoe just as soon as the boat-house is opened and take me up the river." (You know how a girl would say that....)

This made John reflect. Within he boiled. Again he thought fast. An acquaintance of his owned a canoe; he'd get it and take Mary up the Speed before Bill had a chance. He'd show this rival a thing or two.

"Say Mary, how about tomorrow night? Will you come up the river tomorrow evening with me?"

"John!—I'll go—unless—Yes, I'll go, John!"

The next day was a busy one for John. The loan of the canoe was not difficult to arrange but it had to be soaked for a few hours to close up the seams which had opened during the winter. As a consequence John missed lectures that afternoon but he couldn't concentrate on lectures that day anyway.

The evening was balmy. The robins and song-sparrows sang merrily; the frogs piped; the river was calm. Mary

slipped away from the Hall unaccompanied and met John at an appointed place on the river bank. She was soon comfortable amongst a dozen cushions. The canoe smoothly glided around the tortuous curves of the little stream. Except for a casual remark or two the couple were blissfully silent. It was surely the happiest time of the year when all nature softly stirred. Soon the old moon peeked above the eastern horizon. Under the influence of this serene atmosphere John felt that he must say something. He had to say something—it wasn't very much, calculated in words, but it meant such a great deal. At last he summoned his whole being to express himself. Yes, he was certain he loved her;—it was inexpressible—but he said it as best he could—and she understood. The moon smiled, there was an audible hush. But it is none of my business to say any more on this particular subject. I don't know all the details anyway.

Be it sufficient to say that ever after that memorable evening it was easy sailing for Johnny dear. The next fall Mary wore a solitaire (consuetudinary at Mac!). All that year John was a paragon of devotion and the boys teased him unmercifully. And now that we have gone so far with this happy couple let it be known that in a few weeks' time the sweetest little girl in the world will command one of the finest homes on one of the finest farms with one of the finest men of Rossland County.

And that's that!

I have seen those seeds on whose selection much time and labor had been spent, nevertheless degenerating if men did not every year rigorously separate with the hand all the largest specimens. So it is all things are fated to deteriorate, and, losing their ground, to be borne backwards.—Virgil, *Georgics*, 37, B. C.

The Work of the Dominion Experimental Farms.

By E. S. ARCHIBALD, B. A., B. S. A., Director.

This is the largest Branch of the Federal Department of Agriculture, being composed of the Central Experimental Farm at Ottawa, twenty-one Branch Farms and Stations, two Tobacco Experimental Stations, and eight Experimental Sub-Stations.

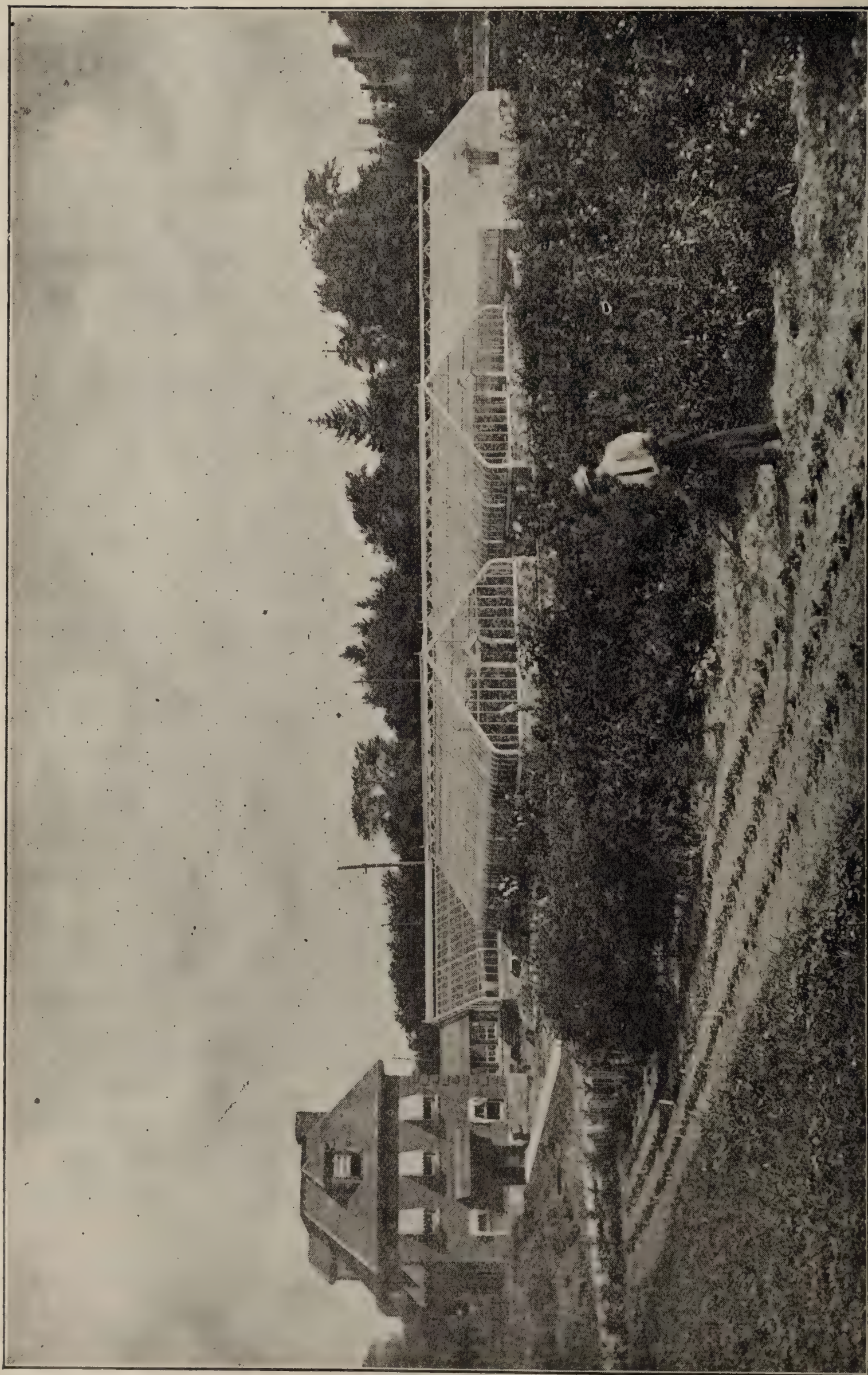
The Branch Experimental Farms and Stations are as follows: Charlottetown, P. E. I.; Nappan, N. S.; Kentville, N. S.; Fredericton, N. B.; Cap Rouge, Que. Lennoxville, Que.; Ste. Anne de la Pocatiere, Que.; La Ferme, Que.; Kapuskasing, Ont.; Morden, Man.; Brandon, Man.; Scott, Sask.; Rosthern, Sask.; Indian Head, Sask.; Lethbridge, Alta.; Lacombe, Alta.; Agassiz, B. C.; Summerland, B. C.; Sidney, B. C.; Invermere, B. C.; Swift Current, Sask. The Tobacco Stations are located at Farnham, Que., and Harrow, Ont. The Experimental Sub-stations are located in the thinly settled districts of northern Alberta and the North West Territories, and are conducted with the view to ascertain the northern limits of agricultural production in the Dominion. These Sub-stations are located as follows: Beaverlodge, Alta.; Fort Vermilion, Alta.; Grouard, Alta.; Fort Providence, N. W. T.; Fort Smith, N. W. T.; Fort Resolution, N. W. T.; Salmon Arm, B. C.; Swede Creek, Y. T.

As a connecting link between the Experimental Farms and the farmers of Canada, there has been established a system of what are termed Illustration Stations. On these some of the outstanding results of experiment as ob-

tained upon the Experimental Farms themselves are demonstrated on farms owned by individual farmers, the demonstration work being done by these farmers themselves under the general supervision and instruction of officers of the Experimental Farms Branch.

At the Central Farm, Ottawa, which is, as its name implies, the headquarters of the System, there are located the Director of Experimental Farms, who is head officer of the Branch together with thirteen Divisions, each under the immediate control and supervision of a divisional chief. These officers with their Divisions are again subject to the general control of the Director. These Divisions are as follows: Animal Husbandry, Field Husbandry, Horticulture, Cereals, Forage Plants, Poultry, Bees, Tobacco, Economic Fibre Production, Chemistry, Botany, Illustration Stations and Extension and Publicity.

In these Divisions at Ottawa, under the immediate supervision of the divisional chiefs are carried on most of the preliminary work of research and experiment, the work being then extended and its more practical aspects carried on upon the Branch Farms and Stations under the immediate supervision of the Superintendents, but under the general guidance of the divisional head; the whole, as said before, being subject to the ultimate authorization and approval of the Director of Experimental Farms. The results of the work throughout the system in any particular line are then collated at Ottawa and given to the pub-



Greenhouses, Central Experimental Farm, Ottawa.

lic in such form and at such time as to be of the most value.

Division of Animal Husbandry

This Division has charge of the work with beef cattle, dairy cattle, and dairying, horses, sheep, and swine, and carries out experiments in the breeding, feeding, housing, and management of each of these classes of livestock.

With beef cattle, steer feeding experiments are being carried on each year.

Breeding work with beef cattle is being carried on at the Experimental Station at Lacombe, Alta., with the Aberdeen Angus breed, and at Nappan and Lennoxville and Indian Head with Shorthorns. Special work is also being conducted in the endeavor to develop a good milking strain of a dual purpose type, the Shorthorn being used in this work; this is being featured at Kentville, Fredericton and Brandon.

The work with dairy cattle is very extensive and detailed, comprising the comparison of dairy breeds, grading-up experiments, feeding studies such as comparison of home grown feed vs. concentrates, meals and milk for calves, meals for milk production, roughages for milk production, etc., etc. In dairying, practical work is being conducted in selling milk to best advantage, that is as milk, butter, cream, or cheese. A number of different kinds of cheese are manufactured, etc., etc. Milking machines of different makes have been given a thorough test in connection with the dairying work.

With horses, breeding experiments are being carried on at a number of Branch Farms with Clydes and Percherons, and in connection with the Experimental Station at Cap Rouge, Que., a special horse farm has been established where attention is being given to the breeding of French Canadian horses.

Many experiments are carried on from year to year in the economical feeding and management of work horses, cheap wintering and housing of the same etc.

With sheep, comparison of breeds is being carried on throughout the System and at one or two of the Stations in the West, the raising of sheep under range conditions is being carried on.

Swine feeding and breeding is one of the main features of the work of the Division of Animal Husbandry, extensive experiments being conducted in breeding and feeding and comparison of these.

Division of Field Husbandry

Much of the work of this Division may be defined as the practical application or test under field conditions of the results obtained by some of the other Divisions more directly engaged in scientific research. However, many new lines of work of great importance are also under way in this Division. Briefly, its main lines of investigation are the following: comparative tests of different commercial fertilizers, study of different methods and systems of farm drainage, study of various rotations as to their suitability for different styles of farming and varying soil and climatic conditions, cultural experimental work having in view methods of securing maximum production, maintaining for increasing fertility, conserving moisture, keeping weeds under control, etc., etc., studies in farm management, comparative tests of various types and makes of farm machinery, cost of various farm operations, etc., etc.

Division of Horticulture

The work of the Division of Horticulture falls in four sub-divisions, namely, vegetable gardening, orcharding and small fruits, ornamental gardening, and plant breeding. The work in vegetable

gardening covers not only the testing of varieties but also experiments in cultural methods. With tree and bush fruits, work is carried on with plums, apples, cherries, grapes, raspberries, strawberries, currants, gooseberries, etc. Experiments are also conducted as to the results from closely planted orchards; tests of various orchard cover crops are carried on, inter-cropping with vegetables, irrigation experiments, methods of pruning, etc. At some of the Branch Farms, horticulture is made a special feature of the work, namely, at Kentville, N. S., Morden, Man., where every effort is being made to evolve varieties hardy enough for use in the prairie provinces; at Summerland, B. C., where the production of horticultural crops under irrigation is the main feature of the work; and at Sidney, B. C., where climatic conditions permit of a very wide range of horticultural experiment.

In ornamental gardening, variety tests of annuals, perennials, trees, shrubs, and vines are carried on at all the Farms to ascertain the suitability and hardiness of these for ornamental purposes. Landscape gardening is also being studied, also the use of home grown vs. imported flower seed, and the production of bulbs has been undertaken at Sidney, B. C. This work also comprises experiments with forest belts for protection of homesteads, especially in the prairie provinces.

Extensive work in plant breeding is being carried on with the hope in view of improving existing sorts, of originating new sorts through crossbreeding. Studies of the laws of heredity are also being made. Greenhouse work is given special attention at Ottawa. Extensive spraying experiments are carried on throughout the system to test the value of different sprays, different number of

applications, different times of application, etc., etc. Considerable work has also been done at Ottawa in the study of different methods of canning fruits and vegetables and the utilization of horticultural by-products.

Cereal Division

The work of the Cereal Division comprises the production by crossbreeding and selection of new varieties of grains, and the testing of these as to their suitability for various parts of Canada. The latter part of the work is carried on at the branch Farms as well as at Ottawa, as is also the production of approved varieties on a larger scale to permit of their general distribution. Notable successes in the production of new and improved sorts are the Marquis, Prelude, and Ruby wheats, Arthur peas and Liberty oats.

Tests of varieties already known and of imported varieties are also conducted throughout the system, in order to obtain accurate data, over a number of years, as to their comparative earliness, yield, hardiness, etc.

In order to reduce, as far as possible, variations in results due to difference in soils, etc., these tests are conducted on duplicate plots on as many of the Farms as possible.

Division of Forage Plants

The Division of Forage Plants has for its work variety testing of grasses, leguminous forage plants, field roots, and Indian corn; plant breeding with the same; the collection of Canadian wild flora, giving special attention to genera and species likely to be of value as forage plants; investigating the possibilities and best methods of growing root seeds in different districts in Canada; the possibility of producing sugar beet seed in Canada is also looked into, and efforts

are being made towards standardization of type in the various varieties of root seed now sold commercially. A very interesting feature of the work during the last two or three years has been the experiments with sunflowers for ensilage to replace corn and other ensilage crops in the cool and dry areas of Canada. Much success has so far attended this work. The work in plant breeding comprises the breeding of alfalfa, red and alsike clover, timothy, Western Rye grass, red top, orchard grass, and fescue, also of mangels, turnips, and carrots. One of the main objects in the plant breeding work with clovers and grasses is the production of hardy strains with a view both of lessening winter-killing and of extending the area northward, wherein such forage crops may be grown.

Poultry Division

The work of the Poultry Division has greatly expanded during the last few years, both at Ottawa and at the Branch Farms, and the field of experiment has been greatly widened. Its main lines at present are as follows: study in artificial incubation, poultry breeding, systems of brooding and economical methods of rearing, experiments in crossing breeds, the best method of raising late-hatched chicks, trap nesting, methods of increasing winter egg production, methods of obtaining maximum fertility, feeding experiments, and some work is also being done in the raising of turkeys, ducks, and geese.

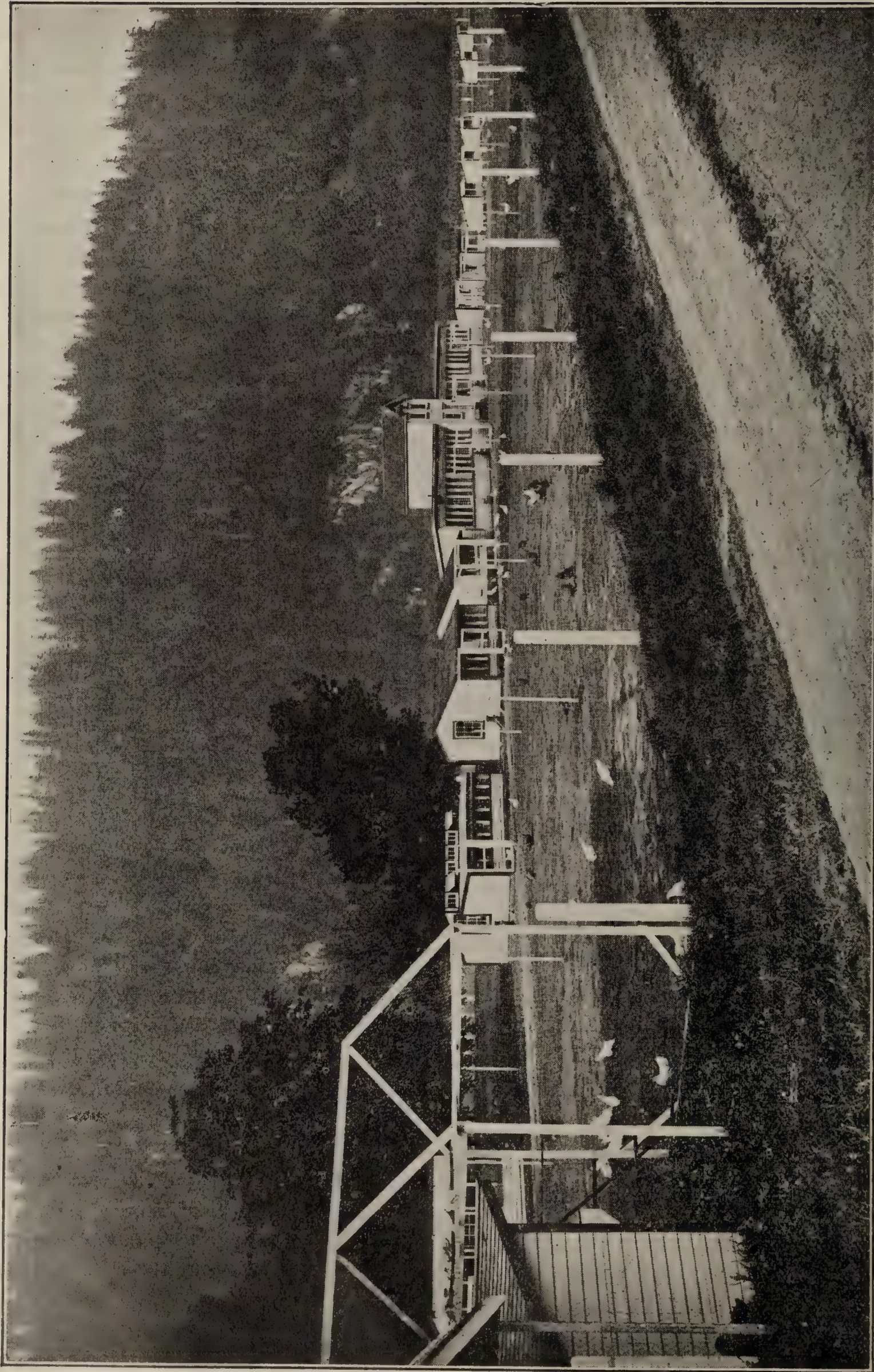
Co-operation is carried on with the Health of Animals Branch in the study of poultry diseases, and with the Division of Chemistry in the study of the many important economic problems connected with feeds, feeding, incubation, etc., etc. Wide tests have been carried on in the testing of various styles of

poultry houses, brooder houses, colony houses, etc., and blue prints, specifications, etc., of the styles found most suitable for the various parts of Canada are sent out to those asking for information.

A new and very popular feature of the work is the Egg Laying Contests, which are now carried on at eight Branch Farms and at the Central Farm. These Contests are intended to stimulate good poultry keeping and serve as a basis for the registration of pure-bred poultry of productive strains. The poultry survey work conducted by this Division is also giving gratifying results. It is an endeavor to get groups of farmers in various localities to keep accurate records of their poultry costs and returns. This would naturally lead to better housing, breeding, and care of the farm flock.

Bee Division

The work of the Bee Division falls under four heads: breeding, feeding, manipulation of bees, and the study of bee products. In breeding, endeavors are being made to produce a strain of bees with a lessened tendency to swarm, and to compare the Italian vs. the hybrid vs. the black bee, as to the suitability of each for certain localities and as to disease resistance. The best methods of re-queening are being worked out and a study of the wild bees of Canada is being made. The best feeds and methods of feeding are being studied, as are also the best methods of spring protection and best ways of wintering. In the manipulation of bees, demonstrations are made, from time to time to gatherings of beekeepers, covering practical operations. Co-operation has been arranged with a number of bee-keepers in different localities, observations being made by these as to the effect of



Poultry Plant, Agassiz, B. C.

the weather on honey flow, etc., etc. Collections are being made at Ottawa of the honey plants of Canada with their location and extent. The marketing of honey in the most profitable and attractive way is also being given attention.

Tobacco Division

The work of this Division deals with breeding, variety tests and soil cultural methods, fertilizers for tobacco and the manufacturing and warehousing of tobacco.

In plant breeding, such work is being carried on as seeking varieties of White Burley resistant to tobacco rot; the improvement of existing varieties and the originating of new ones by selection and crossbreeding, best means of combating troubles in the seed-bed and of checking diseases in the field and reclaiming "tobacco sick" soils; of combating fungi and obtaining the best moisture and temperature conditions in the warehouse.

In variety tests and cultured methods, the following are the main lines of experiment being carried on:—study of the best rotation for flue cured and White Burley tobacco; best insecticides for destroying the tobacco horn worm; manure and fertilizer tests; tests of machinery used in tobacco growing and manipulation; experiments in depth of ploughing; planting at different distances apart; seed beds and soil treatment; degree of frost resistance of seedlings; variety tests of tobacco, noting habits of growth, relative value and yield, and possibilities of newly introduced varieties, and the raising of tobacco seed. A wide distribution of seed of the best varieties is made each year to applicants.

The work in warehousing and manufacturing includes the use of charcoal heaters to reduce the time of curing

and to check moulds; flue-curing for the production of bright tobacco; demonstrations of grading tobacco and of packing and warehousing processes; scaffolding vs. direct curing and splitting vs. not splitting the stalk and their effects on colour and the duration of the curing process, etc.

Co-operation experiments in fertilizers for tobacco are giving excellent results in both Quebec and Ontario.

A complete analysis of the soils of the tobacco producing regions of Canada is being made. During the growing season inspectors examine the tobacco fields of as many growers as possible with a view of suggesting the best cultural methods of combating insect pests and diseases etc.

Division of Economic Fibre

Production

This Division formed in 1916 has made rapid strides towards getting on a full working basis. Acre lots of fibre flax have been grown in various sections of Canada, and fibre of an excellent quality obtained therefrom. During the war, when fibre flax was so urgently needed for the production of linen for war purposes, the Flax Division did a great deal towards stimulating the growth of this crop in Canada, and also contributed largely towards the production of fibre flax seed in Canada for shipment to Ireland to permit of larger areas being sown there. The experimental work of the Division is directed towards determining what areas in Canada are suitable for fibre production; what varieties and strains of seed are best suited to different localities; the proper amount of seed to sow per acre; the right time to sow and harvest; and the use of fertilizer on fibre crops, etc.

The Division is also studying hemp

growing in Canada, although so far, owing to the special conditions outlined above, its efforts have been chiefly directed towards flax production.

The prime essential for successful flax growing is the invention of labour saving devices, such as flax pullers. With the co-operation and assistance of the Division a successful flax puller is now on the market, as is also a deseeding machine whereby the flax straw may be threshed and the seed so obtained without damage to the fibre. An improved flax scutcher has also been imported from Ireland.

The Division was unfortunate last year in losing the flax mill at the Central Farm, Ottawa, by fire. Arrangements have been made this year to secure a commercial flax mill at Clinton, Ont., where a large area of flax has been sown under the supervision of the Chief of the Division to be used for experiment and demonstration in the mill.

Division of Chemistry

The work of this Division is widely varied. It co-operates as far and as closely as possible with the other Divisions of the System in the study of chemical problems arising from their work. Thus it makes analysis of fodders and feeding stuffs, fertilizers, soils, insecticides and fungicides, determinations of the gluten content of various wheats, etc., etc. In addition, its main lines of independent research are as follows: The collection of data in agricultural meteorology and the study of these as to their influence on crops; the study of soils from irrigation tracts in Canada with a view to their classification into irrigable and non-irrigable lands.

Well Waters from Farm Homesteads

These samples are analyzed free of

charge to farmers sending them in, and the work has done much to prevent the use of impure well waters and to indicate the proper methods to follow to prevent water in farm wells from contamination.

The Division carries on extensive investigational work with fertilizers at a number of the Farms and Stations with a view of ascertaining the most profitable composition and quantity of various fertilizers to be applied with and without manure, etc., etc.

The Division has done a large amount of work in the analysis of feeding stuffs, sugar beets for factory purposes, fertilizer materials, and also in the analysis of samples sent in by the Meat Inspection Division of the Health of Animals Branch and from other sources.

Division of Botany

The work of the Division of Botany comes under the two heads of economic botany and plant pathology. The work in the former is chiefly done at Ottawa, and consists of the study of medicinal poisonous and other economic plants, also the life history of weeds, with a view to their control and eradication. This section of the work also deals with the identification of specimens sent in by correspondents and has charge of the divisional herbarium and of the Arboretum at the Central Farm.

To carry on the work in plant pathology, there have been established, in addition to the Central Laboratory, Laboratories at Charlottetown, P. E. I., Fredericton, N. B., St. Catharines, Ont., Brandon, Man., Indian Head, Sask., and one is now being located at Summerland, B. C. The chief problems being studied at these laboratories are those principally affecting crops in the vicinities; thus in New Brunswick and Nova Scotia, diseases of fruit trees are under in-

vestigation. The later also are especially studied at St. Catharines. In the West in the prairie provinces, the laboratories have for their special object the study of rusts attacking wheat. The laboratory at Summerland will be especially devoted to the study of fruit tree diseases.

Division of Illustration Stations

This Division was formed in 1916 and is in charge of a Supervisor and five assistants, two for the prairie provinces, two for Quebec, and one for New Brunswick and Nova Scotia. At present the number of these Stations is eighty-six.

The object of the Illustration Stations is to serve as a connecting link between the Experimental Farms system and the farmer. A representative farmer is chosen in each locality, and on a certain area of his farm, are illustrated the best rotations, the best varieties of crops, and the best cultural methods as determined by the work of years on the Experimental Farms. Detailed data on cost of production are being gathered in connection with this work. Seed grain produced on these farms is available to the farmers in the district served.

This work is already proving very valuable, both in the interest aroused and in the results being obtained. Meetings are held each year in the neighborhood served by the Illustration Stations, where problems of better farming are discussed.

The Division of Extension and Publicity

This Division, formed in 1914, is an-

other link between the Experimental Farms and the farmer, by making the work of the farmer as widely known as possible. A chief means to this end is the placing of exhibits of an educative character at as many as possible of the fairs held throughout the Dominion.

The number of fairs attended is limited only by the difficulty and expense of arranging a sufficient number of circuits to permit of more fairs being covered. Plans are being made to permit of all fairs being attended at least once in three years, the only difficulty in this being that the Farms exhibit has proven such an attractive feature that fair managers are anxious to secure it every year. At these fairs, exhibition circulars, short and written in popular style, are being distributed free. The attendant is expected to invite farmers to have their names put on our mailing lists that they may receive such publications as are of interest to them.

The Experimental Farms Branch also, in addition to the above lines of work carried on by the various Divisions, endeavors to assist the Canadian farmer through correspondence, through the issuing of reports, bulletins, circulars, and pamphlets, through the issuing of "Seasonable Hints", a small periodical brought out every four months and containing articles on timely topics, and through the sending out of press articles to a large number of farm journals, periodicals, and newspapers, throughout Canada, also by giving assistance in lectures, short courses, demonstrations and judging, and by encouraging the holding of excursions to the Central and Branch Farms by farmers' organization.

In the Tabian district, where they are in the habit of irrigating the fields, it is a very singular thing that the water kills all the weeds, while at the same time it nourishes the corn, thus acting in place of the weeding hook.—

Pliny, *Natural History*, 23-79 A.D.

Heat

From plains that reel to southward, dim,
The road runs by me, white and bare;
Up the steep hill it seems to swim
Beyond, and melt into the glare.
Upward half-way, or it may be
Nearer the summit, slowly steals
A hay-cart, moving dustily
With idly clacking wheels.

By his cart's side the wagoner
Is slouching slowly at his ease,
Half-hidden in the windless blur
Of white dust puffing to his knees.
This wagon on the height above,
From sky to sky on either hand,
Is the sole thing that seems to move
In all the heat-held land.

Beyond me in the fields the sun
Soaks in the grass and hath his will;
I count the marguerites one by one;
Even the buttercups are still.
On the brook yonder not a breath
Disturbs the spider or the midge.
The water-bugs draw close beneath
The cool gloom of the bridge.

Where the far elm-tree shadows flood
Dark patches in the burning grass,
The cows, each with her peaceful cud,
Lie waiting for the heat to pass.
From somewhere on the slope near by
Into the pale depth of the noon
A wandering thrush slides leisurely
His thin revolving tune.

In intervals of dreams I hear
The cricket from the drouthy ground;
The grasshoppers spin into mine ear
A small innumerable sound.
I lift mine eyes sometimes to gaze:
The burning sky-line blinds my sight:
The woods far-off are blue with haze:
The hills are drenched in light.

And yet to me not this or that
Is always sharp or always sweet;
In the sloped shadow of my hat
I lean at rest, and drain the heat;
Nay more, I think some blessed power
Hath brought me wandering idly here:
In the full furnace of this hour
My thoughts grow keen and clear.

—Lampman.

The Mail Box.

Criticism, Corrections, Opinions and Advice, By Review Readers

To the Editor:—

Prior to leaving Guelph some weeks ago we were reminded by the editor of our promise to write something for the Review this summer. The summer has now arrived, and here is something.

The Review appears to be suffering from a dearth of contributors, and what

lished in the interests of agriculture", thereby assuming that agriculture interests itself in what is revealed when a copy of this publication is opened. Now there are a great many magazines, journals, papers, and periodicals in Canada and the United States and, what is more, agriculture does interest itself to a cer-



“—the Review was from birth a dismal failure—”

is more, the quality of the articles submitted and even printed is, by consensus of opinion not excessively high. Let us inquire into this matter; it will at least bear investigation.

Beneath the word indicating that the reader is perusing a review—exactly of what, it is perhaps difficult to determine—there is the elucidating phrase “pub-

tain extent at least in some of them. In practically every self-respecting farm home in Ontario one or more agricultural publications are regularly subscribed to and as regularly read. But with the exception of the homes of students and ex-students in how many places will **one** encounter the O. A. C. Review where it is eagerly anticipated every

month and in turn opened, devoured, assimilated, and digested? No, it must be reluctantly admitted that so far as concerns the real and vital interests of practical agriculture the Review was from birth a dismal failure, and is still.

Notwithstanding this alarming statement it will readily be conceded that the monthly appearance of this sample of printed matter is met by a certain group of men and women with feelings of delight that lie positively too deep for expression. By the intense eagerness with which the magic words "The Review is Out" are greeted no one will attempt to deny that to succeeding classes of students and ex-students of both the O.A.C. and Macdonald Hall the old college magazine is and always will be cherished with fondest hopes and most precious memories. If it embodies the foregoing and nothing else surely such trivial matters as doubtful quality of articles, shortage of contributors, delayed publication and failure to reach the average farmer are easily overlooked by its enthusiastic though comparatively few readers.

But in spite of all this the old ever-recurring question will persist in forcing itself upon our unwilling attention: "Why not improve the Review?" Many articles are poorly written and uninteresting, much trash manifests itself, no mark of genius is ever discovered, plagiarism is quite evident, material is copied from other papers, and the farmer haughtily disdains it. Can not an im-



"—and the farmer haughtily disdains it."

provement be effected? And we are always met with the same complacent

cheerless answer: "Do something yourself; no one has the right to criticize who has not tried to help." Admittedly but still these destructive criticisms insist on coming, in most cases unjustly it is a fact and in some cases rightfully. On the face of it the solution of the problem is that every critic does something to help. This would include every student at present in Guelph and many more. On asking exactly what is meant by help we are coldly informed "by writing". Imagine our worthy editors deluged with manuscripts and scraps of paper sent in by each one of at least a thousand people. Think of separating the gold from the dross. Picture for yourself the interminable, collating, selecting, rejecting, editing, proof-reading, and then contemplate a salaried editor and a paid office staff maintained solely for the timely and presentable regular appearance of the O. A. C. Review. Do the two ideas seem so very far apart?

Undoubtedly the assistance or "help" of every critic would neither be desired nor welcomed under the present regime, but what is obviously sadly needed is the earnest effort and unflagging endeavor of every single person capable of writing an intelligent readable and well-constructed article pertaining to college life or to the vast realm of agriculture—with emphasis on the Ontario farmer's practical everyday working *agriculture*.

With all due regard to principles of philanthropy and edicts of moral duties combined with the honorary obligations which all college students are expected to discharge, the melancholy fact remains that we are all more or less addicted to the ubiquitous vice of "Mammonism." When some sort of remuneration is forthcoming we are more disposed to do things and to do them better and more willingly than when our work is awarded a mere formal "thank-

you." Witness the increase in the numbers of contributors on account of the annual competitions when some prizes are to be won, even if they are of little value.

The only practical solution therefore of this pressing difficulty is to make it worth while for the students to submit contributions for the Review. Many good articles are written by undergraduates and by members of the faculty which are eagerly bought by the various agricultural journals, the writers being handsomely paid for their work. If a system could be arranged whereby contributions to the Review would yield returns in cash to the ones who submit

them an improvement in the magazine would be observed, because all demands would readily be supplied. Whether increased sales would counterbalance the extra expenditure involved is entirely a speculative matter; the selling price might have to be raised even, and less expensive paper used, with numberless other unwelcome economical measures resorted to, but without a vestige of a doubt the general quality of reading matter would be very materially changed—for the better.

Improve the Review? Why not? The way is clear enough.

Railroader.



Canadian Literature: A Series.

By G. H. UNWIN, B. A., B. S. A., Associate Professor of English.

1. Two Pioneers.

No province of Canada has contributed more names to our literature than



G. H. Unwin

Mille, George Frederick Cameron C. G. D. Roberts, his brother Theodore and his son Lloyd, Margaret Marshall Saunders, the author of "Beautiful Joe" Annie Campbell, Huestis, these are only a few names from the long list of Nova Scotia workers. To this province also belongs the honor of having produced the two earliest Canadian writers, Oliver Goldsmith, our first poet, and Judge Haliburton, the first and still one of the most famous of our writers of prose.

Oliver Goldsmith was a descendant of the original Oliver, a grandson of that John Goldsmith to whom *The Traveller* is dedicated. He was born in Annapolis County, Nova Scotia, in 1787, and spent many years in the useful if prosaic department of the commissariat, eventually becoming Commissary Gen-

Nova Scotia. The romantic land of Acadie has always been a fruitful source of imaginative workers. James De

eral. In his spare time he wrote a long descriptive poem which he published first in 1825, under the title of "The Rising Village" and later in a second edition in 1834, which contained some shorter poems. In the preface he says: "In The Rising Village I have humbly endeavored to describe the sufferings which the early settlers experienced, the difficulties which they surmounted, the rise and progress of a young country and the prospects which promise happiness to its future possessors."

The poem is written as a sequel to Goldsmith's *Deserted Village*. The author describes the emotions of the early settler before the immensity of his task:

How great the pain, the danger, and the
toil

Which mark the first rude culture of the
soil

When, looking round, the lonely settler
sees

His home amid a wilderness of trees:

How sinks his heart in those deep solitudes

Where not a voice upon his ear intrudes.

Where solemn silence all the waste pervades

Heightening the horror of its gloomy
shades.

There follows a detailed description of his struggle with the primeval forest, his hardships and privations and, ultimately, his hard-won success. The verses, perhaps, would not find favor among the "high-brows"; but to any reader who loves the spirit of a work and puts it before external form and finish, this simple tale of pluck and endurance will be of considerable interest. The student of history will value it as a personal document of the past, and the literary-minded will find interesting passages which betray the relationship of the author to the original Oliver.

There is for example more than a touch of that quaint fireside humor which charms us in the older poet; in one passage he describes a country store with a blending of sympathy and drollery, which remind one strongly of the famous description of the village inn at Auburn:

Around his store, on spacious shelves
arrayed

Behold his great and various stock-in
trade!

Here nails and blankets side by side are
seen,

Here horses' collars and a large tur-
een;

Buttons and tumblers, fish-hooks,
spoons and knives,

Shawls for young damsels, flannel for
old wives,

All useful things, and joined with many
more

Compose the well-assorted country
store.

The poem concludes with a picture of the pioneer contemplating the result of his labors, his heart full of thankfulness for a prosperity which he had not thought possible. In reading this part of the poem one can feel with the settler the triumphant glow that follows all hard work which has been crowned with success. It is a fine ending, full of hope in the promise of the new land—a fitting answer to the despondent wailings and gloomy predictions of *The Deserted Village*. The "horrid shore" of the earlier poem with its weird collection of blazing suns, scorpions, rattlesnakes, tigers, and clusters of somnolent bats, has been proved a mirage. The new land has been grim and rough, but with a beneficent roughness, hardening its adopted children, making them self-reliant and strong, and laying the foundation of a new race.

Now in the peaceful arts of culture
 skilled
 Sees his wide barn with ample treasures
 filled;
 Now finds his dwelling, as the year goes
 round,
 Beyond his hopes with joy and plenty
 crowned.

Goldsmith died in Liverpool in 1861.

We should delight to honor his name because he is our first native poet, and also because *The Rising Village* is probably the earliest expression of anything approaching a Canadian national feeling. To Oliver Canadensis his country was not just a colony, a "junk-room" for storing away the superfluities of older peoples, but a land of immense latent powers, in which already a vigorous civilization was taking shape. He bequeathed to Canadian literature not only a faithful picture of early times but also the germ of a national spirit.

The other great Nova Scotian writer of this period, Thomas Chandler Haliburton, was a far more conspicuous figure than the modest Oliver. He played a prominent part in public life, both in his native province and later as member for Launceston in the British House of Commons. Judge Haliburton, or "Sam Slick", was born in 1796, nine years after Goldsmith. His birthplace was the pleasant little town of Windsor on the beautiful Avon River, famous as the site of the oldest University in Canada. King's College—now, alas, a heap of ashes—was chartered by George III in 1788 and in its time turned out many famous graduates, but none more distinguished than Thomas Haliburton who took his degrees there in 1815. On leaving college he took up the study of the law and in 1800 he began to practice in Annapolis, the Port Royal of historic fame. His ability soon won him a seat in the Legislative Assembly of the prov-

ince, but his political career in Canada lasted only three years. Haliburton's independent spirit and downright speech brought him into conflict with the members of the council whom, on one occasion he did not hesitate to describe as "twelve dignified, deep-read, pensioned old ladies, filled with prejudices and whims like all other antiquated spinsters." In 1841 he became a judge of the Supreme Court and in 1859 he entered the British House of Commons. He died in England in 1865. The rest of the acts of Haliburton and all that he did, his friendship with Joseph Howe his membership of the celebrated 'club', are they not written in the various books of the chronicles of Nova Scotia? We are concerned chiefly with his writings.

Haliburton's first published work was an *Historical and Statistical Account of Nova Scotia*. He also wrote *Bubbles of Canada* and *Rule and Misrule of the English in America*, two books which contain an analysis of the political problems of the time. *Old Judge, or Life in a Colony*, was widely read during the author's life time and translated into French and German. The work on which Haliburton's fame is chiefly based, however, is the series of humorous sketches which appeared originally in Howe's paper, *The Nova Scotian*, under the title of "Sayings and Doings of Sam Slick" and later were collected and published as "*The Clockmaker*."

This book is an important landmark in the history of our literature for several reasons. It is the first great example of American dialect humor. Mark Twain, Artemus Ward, Josh Billings, the others acknowledge their debt to Sam Slick. The shrewd Yankee pedlar as he travels through New Scotland inflicting his cheap clocks on the easy-going Blue-Noses, gains a fund of experience of human-nature and his droll

but penetrating comments make very pleasant reading. Haliburton's satire is all-embracing; he spares neither the British nor his own countrymen, nor the Yankees themselves. Sam Slick reveals his own weaknesses as well as those of the other nationalities. The assurance of the Yankee, his unalterable conviction that he can "lick creation," his habit of singing his own praises, all these are revealed at every turn. At the same time the excellent qualities of the American, his energy and common sense in business matters, his true kindness beneath a rough exterior, his sound and cheerful attitude towards life are just as clearly depicted. Haliburton's book was attacked on the ground that it held the Yankee up to ridicule. His reply was very characteristic. He explained that there was a strong anti-British and republican party in Nova Scotia, whose views were not only condoned but encouraged by a number of misguided Englishmen at home. It was to counter-balance this influence that he showed things "in their true light." The object was, in fact, "purely patriotic!" Haliburton was as uncompromisingly British as any born in Albion. He was a fearless fighter and his blows always travelled in a straight line.

The Americans, it is true, are not spared in this book; but the Nova Scotians are handled even more roughly. Haliburton loved his native province intensely and his primary object in writing was to waken his countrymen from their lethargy. He wanted them to lay aside personal jealousies and unite in the work of developing their beautiful country. He spoke in wrath, but it was a righteous wrath, kindled by the sight of opportunities lost in the welter of petty subterranean politics. Here is what Sam Slick says about it.

'I guess if they'd talk more of *rota-*

tions and less of *elections*, more of them as *dykes* and less of *banks*, and attend more to *top-dressing* and less to *re-dressing*, it 'ed be better for 'em.'

Judge Haliburton was not a believer in responsible government, which he stigmatized as "responsive nonsense." Events have proved him wrong and Lord Durham right, in the main; but Haliburton was an advocate of government by the enlightened minority chiefly because his experience of ultra-democratic institutions was not encouraging. He wanted the country to have the best possible chance to develop, and thought that this aim was more likely to be fostered by the enlightened few than by a crowd of self-seeking, professional politicians, such as he had no doubt frequently met from across the border. It is an American who says to Sam, in speaking of the Tree of Liberty. "The mobs have broken in and snapped off the branches and scattered all the leaves about, and it looks no better than a gallows-tree."

The convincing quality of this book, is due, however, to the broad-minded attitude of the writer. One feels that one is listening to a man who feared the criticism of neither friend nor foe. Haliburton's satire descends upon all with the same impartiality that the storms of heaven must visit the earth withal. Intensely British in all his sentiments, in none was he more so than in that of fair play. Nobody comes in for a more scattering denunciation than the pompous ignorant and snobbish Englishman, who airs his fancied superiority and patronizes the "natives."

"There's no richer sight that I know of than to see one on 'em when he first lands in one of our great cities. He swells out as big as a balloon—and prances over the pavement like a bear over hot iron—a smirkin' at you, as much as to say 'Look here, Jonathan, here's an

Englishman; here's a boy that's got blood as pure as a Norman pirate, and lots of the blunt of both kinds, a pocketful of one and a mouthful of t'other."

The Clockmaker is a wholesome book and one which has exerted a wide influence. To a few authors is given the power of grafting their own phrases upon their native speech. Haliburton is among these great ones. Many of Sam Slick's rough, pointed sentences have passed into the general current of our speech, and are used by hundreds of people who do not know their origin. For example it is generally thought that Uncle Tom's Cabin is the source of the expression: "Why I guess I wasn't brought up at all. I just grewed up." As a matter of fact these words appeared in the Clockmaker several years before Harriet Beecher Stone ever thought of Topsy. Sam's homely aphorisms have survived because they are "as

true as a plumb-line and as short and sweet as sugar-candy." A few examples may be quoted:

"Power has a natural tendency to corpulency."

"There's no tyranny on earth equal to the tyranny of a majority."

"An American citizen never steals, he only gains the advantage."

"A joke, like an egg, is never no good except it is fresh."

"Never buy a horse on the dealer's judgment, or he'll cheat you if he can; never buy him on your own, or you'll cheat yourself as sure as you're born."

Haliburton has put much of his own personality into this book. Shrewd, humorous and kindly, a bonny fighter and a fearless champion of the truth, as he saw it, he embodied some of the best qualities of our race. Every young Canadian should know something about him—or, better still, read his book.

Editor's Note.—The Review has been fortunate in securing from Mr. Unwin a series of articles upon Canadian authors, of which this is the first. Members of the student body are advised to save the series, upon which the course in Canadian Literature will probably be based. Aside altogether from this fact, which of course lends a close and peculiar interest to the series, these timely articles are well worth careful reading for themselves alone.



"Think o' that —NOW—"

THE O. A. C. REVIEW

REVIEW STAFF

E. T. CHESLEY, '22. *Editor-in-Chief.*

R. E. BALCH, '23, *Associate Editor*

L. H. HANLAN, '22, *Agri.*

R. J. ROGERS, '22, *Exper.*

J. C. GRAHAM, '22, *Hort.*

R. A. HOCKING, '22, *Poultry.*

H. C. ELLIOTT, '23,

Farm Power.

H. M. BARON, '23, *Alumni*

MISS E. WHITELAW, *Mac. Rep.*

MISS B. LAILRY, *Asst. Rep. Mac*

F. B. HUTT, '23, *Col. Life.*

E. N. BUCKLEY, '23, *Athletics.*

MCK. MCARTHUR, '24, *Locals.*

A. T. BROWN, *Apiculture*

EDITORIAL

Degrees.

THE O. A. C. is "broadening out." Many members of the staff are taking postgraduate courses in their chosen lines of work, and more are to follow. This is quite as it should be; the O. A. C. must be kept abreast of the times, and new ideas and methods must be introduced to vitalize the course. One of the greatest criticisms of the college in the past has been that too many green young graduates were appointed to the staff immediately upon graduation, without further training and experience, and that new ideas were as a consequence very slow in filtering through to the student body; that as a matter of fact, many of the lectures were simply repetitions of those received by the lecturer in his course. However up-to-date the information contained in the

lecture might have been when originally prepared, it was hopelessly incomplete nowadays. In fact, some cynics hinted that some lectures had been delivered from the same notes without a change for fifteen years, and that the student was more fully informed upon recent developments than the lecturer.

This reproach is now to be removed. But there are two dangers which must be recognized and guarded against. One of these is over-specialization, of which more hereafter; the other is degree-worship. Both of these dangers are now apparent and must be checked before they go too far, or the advancement which is hoped for will be disappointingly small.

What is the meaning of a degree? It is simply that the bearer has completed

a certain preparation for certain work; the test comes when he undertakes that work. The bearer of a degree or of a string of degrees is not ipse facto a better man than the man who does not possess a degree of any sort; the original equipment, the man himself, must also be considered. Many a man is successful in spite of his lack of academic standing because he possess initiative, resource, commonsense and insight. No amount of schooling can supply these qualities if they are lacking in the original. This is a fact which must not be overlooked, and a second fact worthy of remembrance is this: that the degree of Master of Life from the University of Hard Knocks is of much more value than any other degree conferred by any other university. Other universities are all very well in their way, but they lack the necessary equipment and staff to equal the U. of H. K.

These facts are apparently better understood by our English cousins than by ourselves or the Americans. Degree worship has been carried to a ridiculous extent in some parts of the United

States, and Canada has not been immune to the infection. In England even the greatest Universities upon occasion ignore academic training to bring in men of practical achievement to stiffen their staff. The Professor of English Poetry at Oxford until a short time ago did not hold a degree of any kind, and Oxford is a university of no mean standing. It is a matter of doubt whether the smallest college in Canada would have engaged such a man for lecture work unless he could tack the magic M.A., or B.A., after his name. You see, he had never taken arts courses in the English writings of other people; he had merely written English himself, which is quite another matter.

This warning will in all probability be neither needed nor heeded; but it seems to us worthy of consideration. More power to the postgraduate policy, and may it meet with success; but let us not forget the reason for undertaking such a policy.

"The rank is but the guinea stamp,
The man's the gowd for a 'that.'"

Welcome!

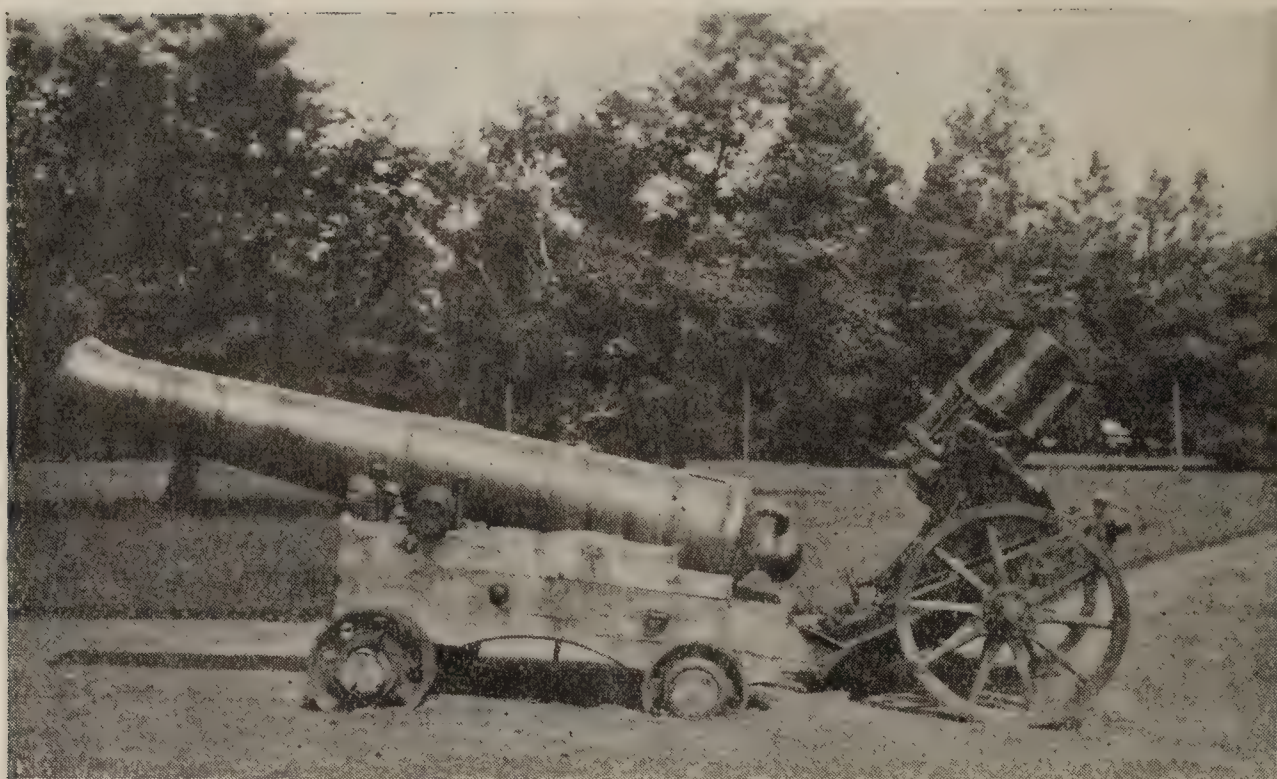
We intended to write an editorial of welcome to the Summer Course. We thought deeply upon the matter and reached the conclusion that the Summer Course could not possibly succeed unless its members were welcomed by the Review. We even composed the opening paragraph, which dealt with the history of agriculture in general, touched lightly upon the ancient, medieval and modern status of the teacher, invoked a blessing upon the union of agriculture and pedagogy, referred in passing to the honorable record of the O. A. C., rang in several classical allusions, and wound

up with a stirring appeal for something or other which we have now forgotten. Altogether it was a fine editorial—highly unreadable, but a fine editorial.

And then we went away for a few days; and when we came back, here was the campus swarming with Summer Teachers, and not one of them apparently caring in the least whether the Review welcomed them or not. They came, they saw, they settled down—that was all. They're perfectly at home; why embarrass them with the formal horrors of hospitality?

We ditched that editorial.

War Trophies.



“Jeremiah” and “Amelia”

The Ontario Agricultural College, which represents the agricultural industry of Ontario; which sent hundreds of officers and men to the Canadian, Imperial and Allied armies; which raised the crack-shooting battery of the Fifth Division; which served mightily, in the person of its alumni, in hospital and laboratory and on the farm, as well as in the fighting-line;—the Ontario Agricultural College has been awarded as its share of trophies of war, one trench-mortar and a miscellaneous pile of junk alleged to have been at one time machine-guns, rifles, and equipment. The original award consisted of two machine guns; a second application brought forth the trench mortar and the miscellany mentioned above. Little towns which sent one-twentieth of the number of men supplied by the O.A.C. feel slighted if they do not receive at the least one “heavy” or two field-guns; however, we suppose the O. A. C. should

be elated over having received any recognition whatsoever. Some godlike Brass-Hat has condescended to note our existence, and that’s something!

—Well, there the thing is! What are we going to do with it? As it squats out there in the open, it looks out-of-place, self-conscious, ridiculous. A trench-mortar was never meant to appear in the open; its proper habitat is a trench or gunpit. Unfortunately we cannot put Amelia in a hole in the ground, appropriate though it would be; such an action might be misconstrued as savoring of disrespect. But we have many clumps of shrubbery about the campus, and Amelia’s snout, emerging from one of those bushy coverts, would then appear not merely perky, self-satisfied, comical, but grim, threatening, glowering, as a respectable war-trophy should. We move for Amelia’s removal to such a position.

The proper time for mowing grass is when the ear begins to shed its blossom and to grow strong; care must be taken to cut it before it becomes dry and parched.—Pliny, *Natural History*, 23-79 A.D.



Although the unpleasant weather threatened to interfere with the program on several occasions the first annual picnic held at the O. A. C. under the auspices of the Provincial Alumni Association on Saturday, 11th June, was a decided success from every point of view. There were former members of the faculty and ex-students present from all parts of the Dominion, and during the day many old friendships were renewed, and the old days at the college were rehearsed and incidents recalled. At the meeting in the morning addresses were delivered by Hon. Manning Doherty, Minister of Agriculture of Ontario, President J. B. Reynolds and Mr. C. F. Bailey, secretary of the Royal Agricultural Show, Toronto. A luncheon was served during the noon hour, and in the afternoon a program of games and sports was successfully run off. Among the latter was a baseball game between the faculty and ex-students; which proved to be very interesting, with both sides claiming the victory. Hon. Mr. Doherty played with the faculty team. The famous "Sod Busters" put on the first part of their show, and this was one of the features of the day.

Association is Growing

Mr. C. F. Bailey, in opening the meet-

ing, pointed out that the number of ex-students that attended the banquet held in Toronto was about 300. The membership of the association is now 230. Mr. Bailey read a letter from Dr. Creelman, which stated that he was sorry he could not be with the society to-day, but that he was with them in spirit. He was glad he had been privileged to have a hand in the training of the men from the O. A. C., many of whom have made a great success in life. He stated that he was slowly improving in health, and hoped soon to be able to take a more active part in life.

Prof. Reynolds spoke of the feeling of friendship and comradeship which existed among the members of the society. The number of ex-students who were present at the gathering, indicated the interest they were taking in the welfare of the institution.

The Hon. Manning Doherty, Minister of Agriculture, stated he spoke more as an ex-student than in his official capacity. He said there were few occasions happier than the present one. "We were all at one time students at this college," he said, "and when we were younger we lived every minute of the day, but now in some of the older ones the fire of youth was dying out." He stated that the college has always been very fortunate in the character and loyalty of

its staffs. The ex-students always appreciate an opportunity to get back and renew acquaintances. In speaking of the economic situation at the present time, the Hon. Mr. Doherty said that everybody expected deflation to occur after the war, but the deflation has not occurred evenly in all commodities, the deflation in agricultural produce has been much greater than in other lines. This has caused the agriculturists to become discouraged and many have sold their farms and gone out of business. It is at a crisis like this that the country looks to the agricultural graduate for leadership. In Europe the agriculturist is the master of the situation; this mastership has not yet come here, but the time will come when the farmer can demand and will get a fair price for his produce. "The Department of Agriculture belongs to the people and especially to the farmer, and one of its chief branches is the O. A. C.," said the Hon. Mr. Doherty. "And we will appreciate any advice or suggestions from ex-students. We aim to make the college a real living force in the rural life of the Province."

To Mr. and Mrs. "Bill" Flemming, '20, a son,—William also, we believe.

S. E. McLean '23 spent a week end in Ottawa recently. Mac didn't say how the home farm was getting on but then his thoughts were absorbed in other things—which are not altogether appropriate.

James J. MacIntosh '23 is working for Mr. Hopkins, Dominion Field Husbandryman, during the summer months. Jimmy says the work has hardened him up and that he hopes to star in athletics (particularly boxing) next fall.

"Freddy" Webster is with "Ikey" Ireton on the Extension work of the Dominion Experimental Farms over the Western Canada Fair circuit.



R. D. Colquette

R. D. Colquette, '15, has resigned from the Grain Growers' Guide to join the staff of the United States Grain Grower at Chicago. Mr. Colquette has made a special study of co-operative organizations and grain marketing and it is in this capacity of instruction of field men that he has joined this new grain marketing organization.

Eric Brink, '19, who secured his Master's degree at Illinois, specializing in plant breeding, has been awarded a scholarship at the Bussey Institute, Harvard University.

John Buchanan is county agent at Nevada, Iowa.

We regret to announce the death on May 22nd in the Ithaca N. Y. Hospital, of Minna Irene Kelley, wife of Robert B. Hinman, B. S. A., '15. Irene Kelley was a Short Course student in Macdonald Institute from Jan. 4 to March 25,

1920. Since their marriage in June, 1920, Mr. and Mrs. Hinman have been living in Ithaca, N.Y., where Mr. Hinman holds the post of Associate Professor of Animal Husbandry in Cornell University.

Mr. Hinman has the warm sympathy of many old friends at the college in his bereavement; and those who knew and loved Mrs. Hinman as a student in Macdonald Institute also tender their sincere sympathy to him and to the sorrowing parents, Mr. and Mrs. F. W. Kelley, of Newmarket, Ontario.

The following extract from a letter received from J. G. Archibald is self explanatory:—

"I am no longer with the International Nickel Co., having left their employ last December. My present position is on the staff of the Massachusetts Agricultural Experimental Station as Assistant Research Professor of Animal

Nutrition. I am greatly in love with my work and find living here a very great contrast to Northern Ontario. Amherst is a beautiful town and the college campus and buildings are very fine.

We have a little place out in the open country easily accessible from the Experimental Station, and with my good wife and three kiddies life is quite livable."

WEDDINGS

"And what is so rare as a day in June?"

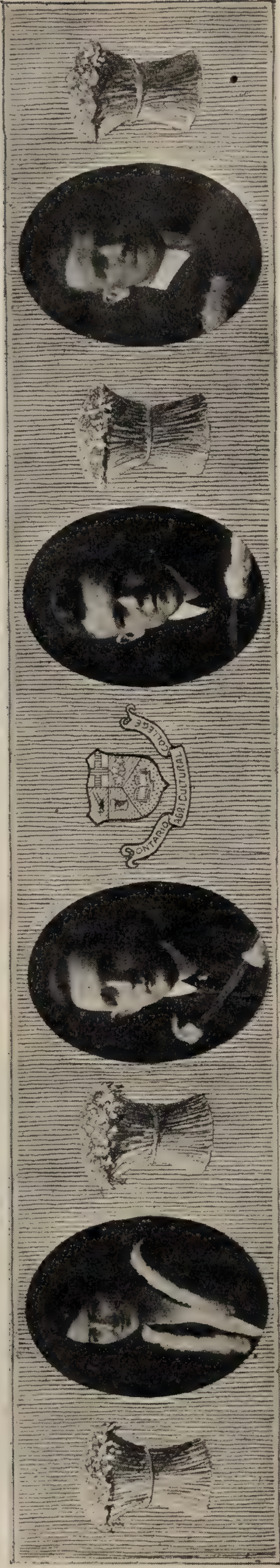
C. F. Luckham, B. S. A., Farm Economics Department, to Miss Irene Graham, daughter of Prof. and Mrs. W. R. Graham, on the 9th June.

W. Hume Clutton, '23 to Miss Margaret Adams of Goderich, on the 8th June.

Fred Shore, '22, to Miss Eva Moore of London, on the 29th June.



"College Days"

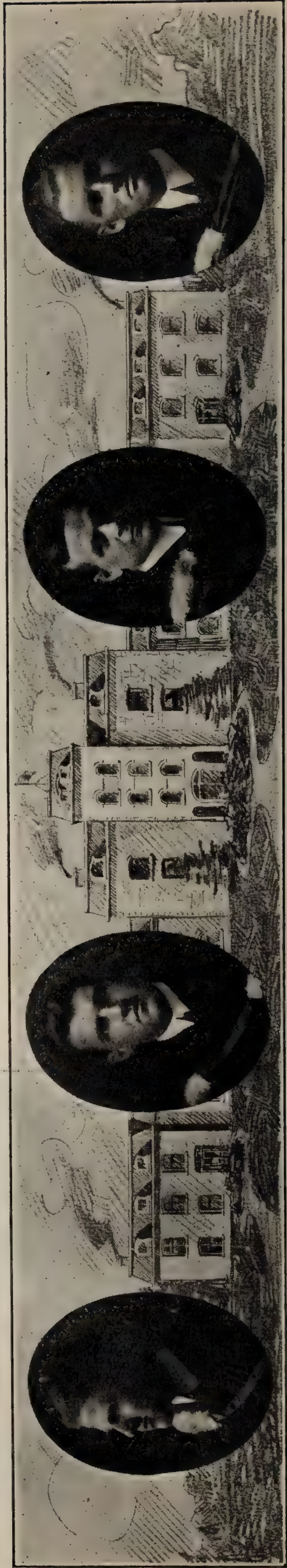


Susan I. (Sue) Chase
Greenwich, N. S.—Farming.

J. R. (Bob) Almey
Winnipeg, Man.—Extension.

Ray (Tommy) Atkin
Dept. of Agriculture.—Barrie.

Denis (Frenchy) Arsenault
Inspector of Dairy Factories,
B. C. and Alberta.



R. N. (Neill) Bissonnette
Entomological Branch,
Ottawa.

A. T. (Husky) Brown
Peterboro—Farming.

George J. Callister
New York—Soil Specialist.

Lyman T. (Chappy) Chapman
Amherst, N. S.—Farming.

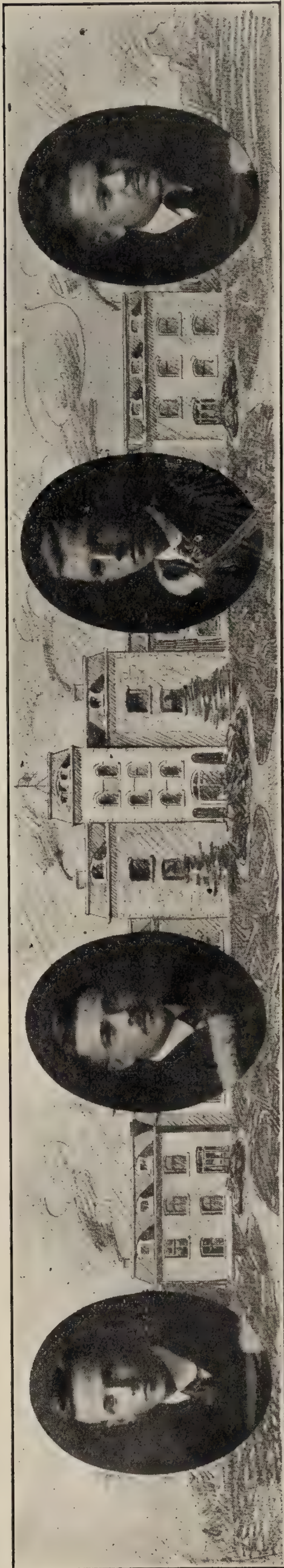


J. E. (Chris) Christensen
Farmers' Dairy, Toronto.

H. R. (Hal) Clark
Collins Bay.—Farming.

H. R. (Harry) Clemens
Department of Apiculture,
O. A. C.

K. (Ken) Crews
Trenton.—Farming.

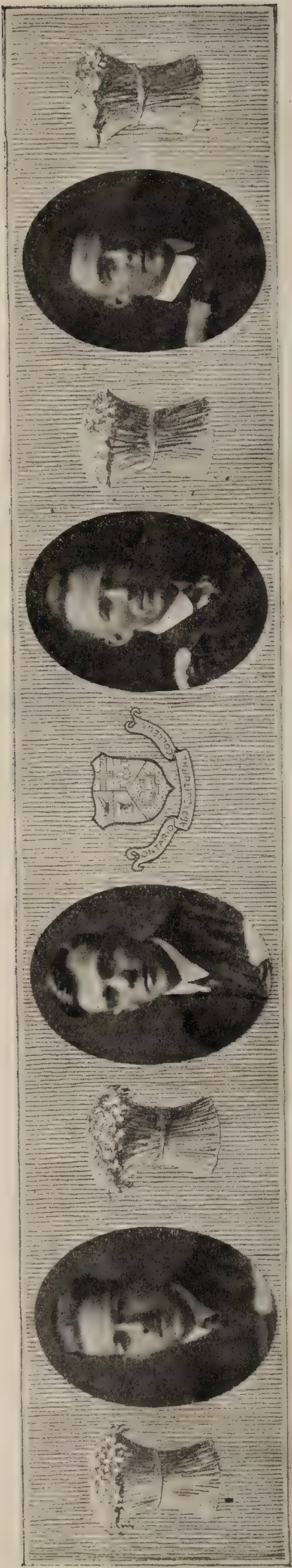


James Cuthbertson
Alberta Agr. Schools.

Clare Deneau
Essex Corngrowers.

George Du Toit,
Cape Town, South Africa
—Farming.

G. H. (Gus) Edwards
O. A. C. Concert Party

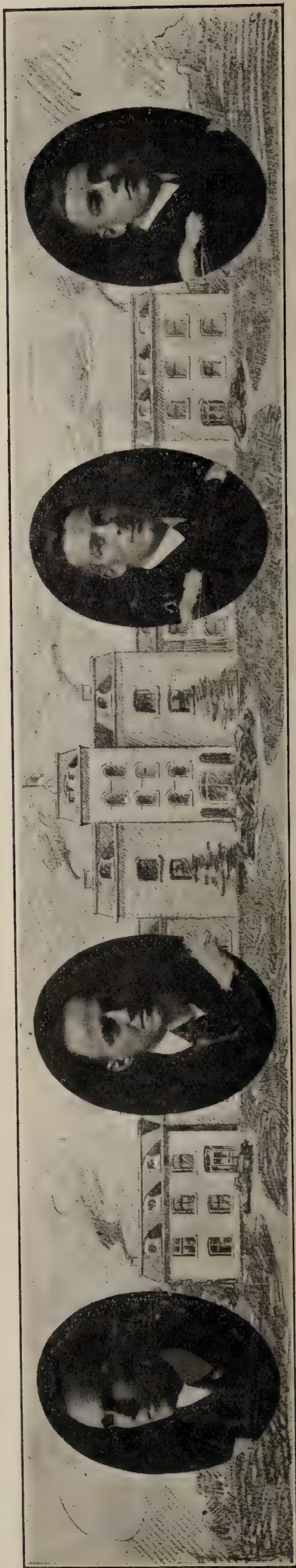


C. C. Eidt
Horticultural Dept., O.A.C.

George A. Elliott,
Seed Branch, Toronto.

C. M. Ferguson
Poultry Dept., O. A. C.

E. C. (Ernie) Foreman
Poultry Dept., Mich. A. C.

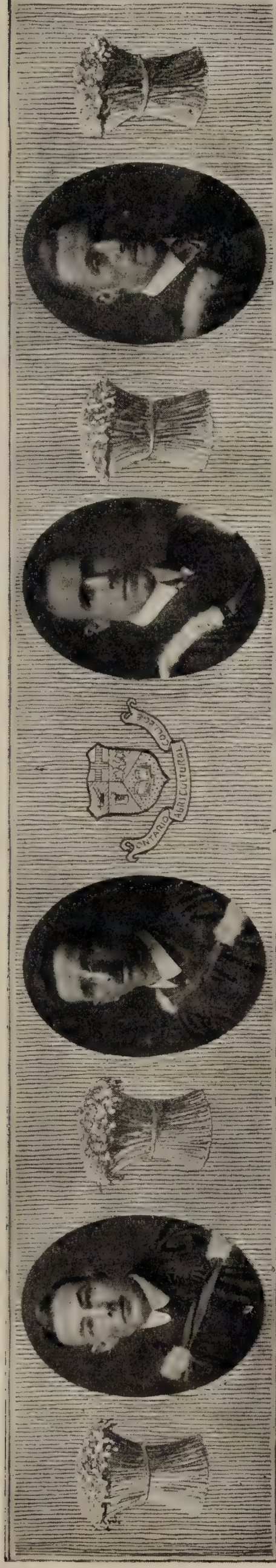


G. S. (Doc) Fraser
Newfield, Ont.

Clayton Frey
Dept. of Agriculture,
London.

Andrew (Andy) Fulton
Dept. of Agriculture,
Toronto.

R. M. (Bob) Goodier
Wintherthur, Delaware.—
Farming.

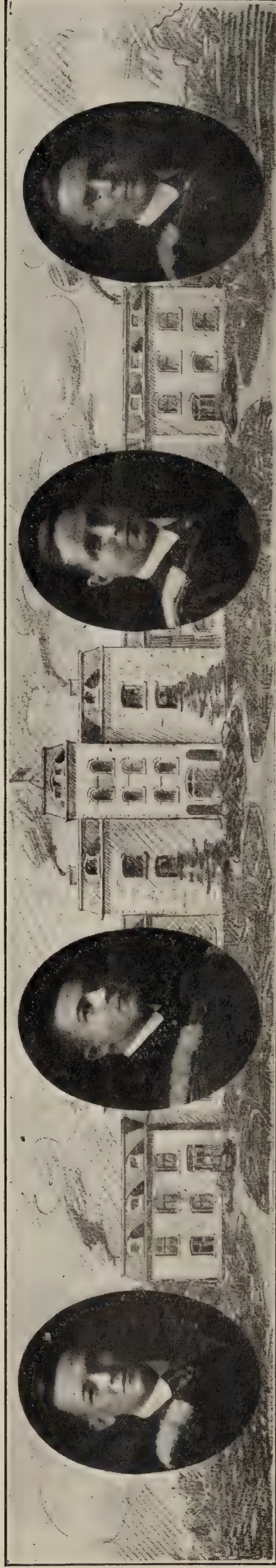


W. H. (Bill) Grant
Supervisor Agr. Education,
Salmon Arm, B. C.

M. (Mike) Grimes
Graduate School, Iowa A. C.

J. A. (Tom) Hall
Etwell, Ont.

C. M. (Mel) Howarth
O. A. C. Concert Party



A. G. (Ikey) Ireton
C. E. F., Ottawa.

S. D. (Glengarry) Irvine
Dalkeith—Farming

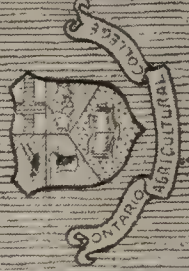
G. L. (Roy) Jarvis
Grimsby—Farming.

R. F. (Reg) Jukes
Postgrad., Amherst, Mass.



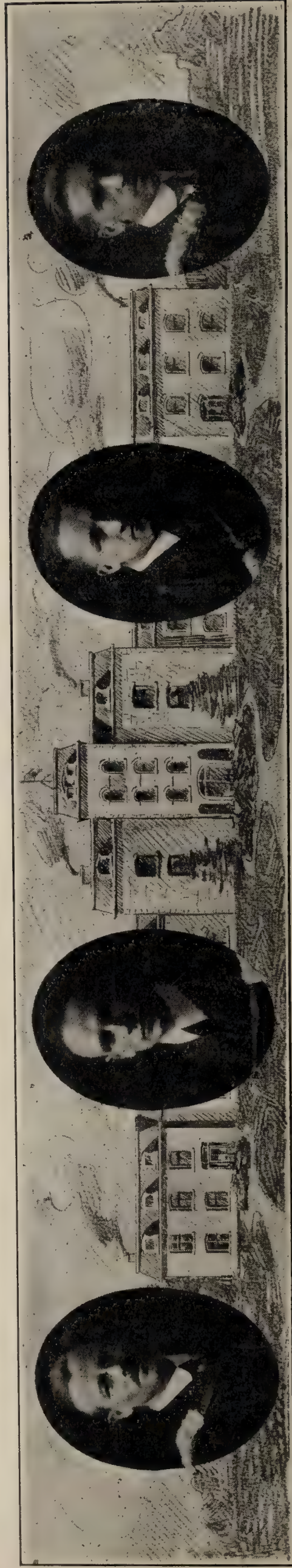
W. J. B. (Bill) Kay
O. A. C. Concert Party.

S. E. (Stan) Keillor
Wallacetown—Farming.



George Knowles
Physics Dept., O. A. C.

Clarence M. (C. M.) Lee
Paris—Farming.



Cyril W. Leggatt
O. A. C. Concert Party.

R. M. Lewis
Honan, China, Missionary

George Lindala

L. C. Long
S. S. B., Edmonton, Alta



V. C. (Doc) Lowell
Physics Dept., O. A. C.



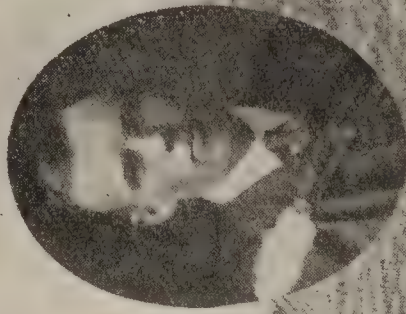
John A. Macdonald
O. A. C.



T. M. Matthews
The "Mercury", Guelph.



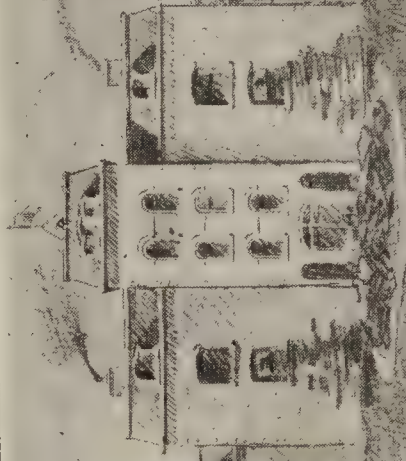
Homer J. Maybee
Trenton—Farming.



A. R. (Mitch) Mitchell
S. S. B., Toronto



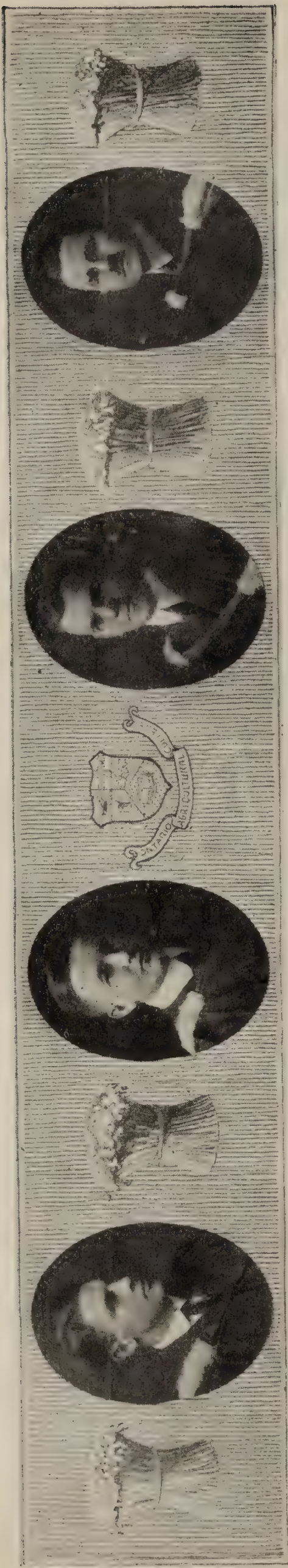
S. H. Morrison
Toronto.



B. W. (Toby) Morton
Department of Physics O.A.C.



J. A. (Jack) MacAdam
Vankleek Hill—Farming.



D. C. (Dan) McArthur
Appin, Ont.

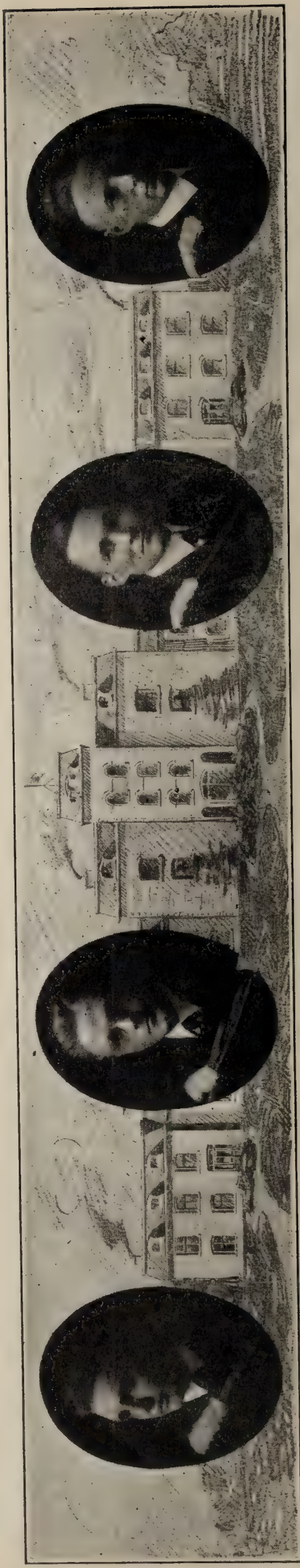
J. T. E. (Jack) McCague
Dept. of Agriculture,
Barrie.



J. G. (Mac) McCrimmon
Postgrad. Amherst, Mass.



J. E. McIntyre,
District Rep., Bathurst, N.B.



W. B. (Bill) McKay
St. Marys, Ont.
—Farming.



J. A. (Scotty) McLean
Sask. Coop. Creameries,
Regina.



M. C. McPhail
Dept. of Agriculture,
Stratford.



J. G. McPharlin
Essex—Farming.

The Sod Busters.

For the first time in its history a streamer spanned the Dundas and Waterloo road the other evening, and that streamer bore the legend:

“O. A. C. SOD BUSTERS—
TO-NIGHT!”

What's all this, I says to myself. So I went back to the house and put on my Sunday clothes after I'd had a good wash out at the rain trough, and then I went down to the Drill Shed to see the show.

A bunch of O. A. C. students are touring the country, giving entertainments to raise money for a Memorial Hall in connection with the college. It is mighty good propaganda. To very many people the Ontario Agricultural College at Guelph was something of a mystery. You might knock about this province from year's end to year's end and you wouldn't meet anyone even remotely connected with it. The college rarely got into print. Some folks wondered what it was good for or bad for. Where did its students come from when they went there, and where did they go to when they left there? Did they look like Upper Canada College men or Bishop Ridley men, and if not, why not?—what for?—can it be possible?—and so on.

This bunch of young fellows are certainly a credit to their mysterious alma mater. They are big, burly, clean looking fellows. It is good propaganda. They are modest young chaps and each one of them carries a punch of some kind. The satisfying part of it is that every one of them saw service overseas,

and two of them starved and endured in Hun prison camps.

The show is a good show. The rural communities are fed up on the professional entertainer who eats up all the profits of every church social and garden party in the land. Old Jim Fax inaugurated the vogue and his imitators have been legion. The horny-handed son of toil won't stand for the black-face comedian or the English dude with the eyeglawse or the Dutchman who never existed either on land or sea. They are heartily sick of everything Irish and you couldn't pay them to laugh at a begorra joke any more. So the students are a refreshing and welcome change. They have a long way to go before they get into gramophone records, something like this: “Come where the tay—come where the tay—

Come where the taters are sprouting,
as sung by the Sod Busters of the O.A.C.”

I understand that the directors of teams in the big leagues send out scouts to hunt up incipient stars. They visit a vacant lot where a game is going on and spot the makings of a great pitcher or first baseman. In Italy there be people prowling through the land all the time trying to find a new great voice. If someone wants to make a fortune for himself and a great comedian he should size up Gus Edwards. It would be a crying shame to condemn that young fellow to hoe corn all his days. He is a natural born actor. He has the best

stage grin I ever saw, and I have seen them all. You know how these great actors and singers come down to the footlights with a smile? It is an artificial and an automatic smile. They put it on with their face powder. It isn't genuine. But when Gus smiles it is the real thing and he has got his audience before he gets down to the front. The whole outfit is unusual and there is enough of the mossback about me to be proud of them. May no one with the evil eye ever look upon their churn, and

may the potato rot never reach their fields. They are fortunate in a very charming girl, Mrs. Leggatt, who plays the female parts, and they are in great luck in their manager, Mr. G. E. Patton, who is no common impresario.

If I wasn't so busy with the haying I'd like to go out on the road as press agent for the bunch.

THE KHAN.

The Wigwam, Rushdale Farm,
Rockton, Ont.

Courtesy Toronto Telegram.



The Senior Normals had many troubles and trials during the many hours they spent on "Equipment."

With one of her difficulties Jean went to a classmate in distress and asked:

"Marj., how did you get the price for small plates?"

Marj.—"Oh, I just bought a whole set of dishes and broke it up."

Heard around the Hall during Examination time: H. M. reading Physiology notes—"If the child is ill too often it should be looked into."

SOCIETY NOTES

Mr. Hubert Upton Western, of the Farm Economics Department, spent the week-end at his home in Barrie, Muskoka.

THIS ONE'S ON US

We were showing a lady a photograph of our father the other day. "A very fine looking man, indeed," she commented. Then she looked at us.

"You must take after the other side of the house," said she.

NEXT!

The Senior, tenderly—"Will you marry me?"

The Macite—"My dear boy, I refused you only last week!"

The Senior—"Oh—was that you?"

The Cosmo Clubard
Went to the cupboard
To get himself something to drink;
But when he got there
The cupboard was bare—
So he got him a drink at the sink!

THE SHUTT-SHORT DIALOGUES NO. 2

Shutt—"These mosquitoes are vicious brutes; one of 'em just bit me in the Postoffice."

Short, sympathetically—"Painful place, eh Don?"

Gushing Lady—"Yes, she's married to a lawyer, and a good honest fellow, too."

Cynic—"Bigamist!"—Punch:

An Epitaph for a Dietitian—
"Peas to her Hashes."

"ANTHEM FOR DOOMED YOUTH"

What passing-bells for these who
died as cattle?

Only the monstrous anger of the
guns.

Only the stuttering rifles' rapid rattle
Can patter out their hasty orisons.
No mockeries for them; no prayers
or bells,

Nor any voice of mourning save the
choirs,—

The shrill demented choirs of wail-
ing shells;

And bugles calling for them from sad
shires.

What candles may be held to speed
them all?

Not in the hands of boys, but in their
eyes

Shall shine the holy glimmers of
good-byes.

The pallor of girls' brows shall be
their pall;

Their flowers the tenderness of pat-
ient minds,

And each slow dusk a drawing-down
of blinds.

WILFRID OWEN.



A versatile maid from Mac Hall
Who was handsome and slender and
tall,

When asked if she'd dance
Said—"I'll take a chance!"
And became the one belle of the ball.

SCIENTIFIC JINGLES

Amoeba is an animal,
Who runs between the clods,
But when I trace his features out
I find they're pseudopods.

The Algae is a lowly plant
Who seldom quarrels or bites,
Yet underneath the microscope
I see gameto-phytes.

The tiny atoms dance about
At an astounding rate,
But under scientific hands,
We find the atom's weight.

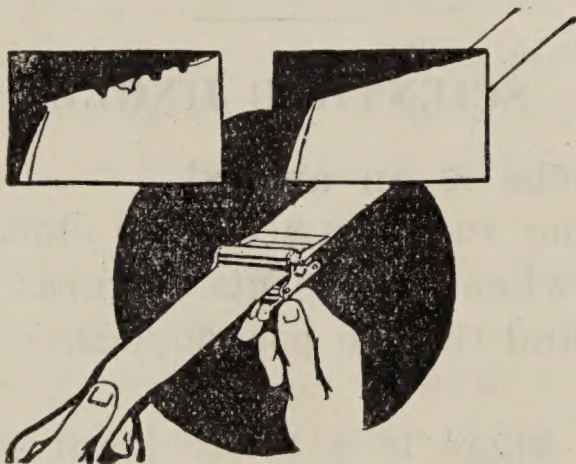
Potential is the energy,
In food-stuffs dietetic,
But when they are inside of me
The energy's kinetic.

THE OLD, OLD STORY

G. E. Patton, Moralizing—"Girls are responsible for a lot of trouble in this world. Sometimes when I think of the amount of suffering they cause, I could hate them all—er, other fellows' girls, of course!"

The other night while going home
Somewhat later than usual
I was waylaid
By a masked marauder
Who massaged my ribs
With a Colt 38
And asked me very politely
For my cash,
But when I told him that I had
Been out with a co-ed
He handed me a five-dollar bill
And passed on silently.—Ubysey.

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It is just as good as it looks too.

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